

# National Bus Trader

The Magazine of Bus Equipment for the United States and Canada

Volume XLV, No. 4

March, 2022

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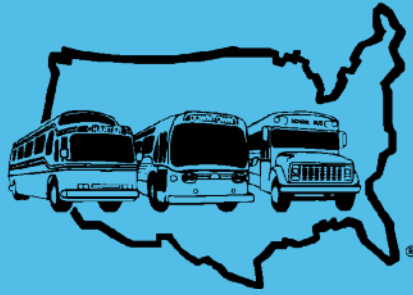
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## Features

## CONTRIBUTORS

**Safety and Liability**  
Ned Einstein

Dave Millhouser



**William A. (Bill) Luke – Bus Industry Organizer, Publisher and Historian (by Larry Plachno) . . . . .19**

In his many years involved with buses, Bill Luke has had a major positive influence on the industry in many areas including organization meetings, creating an industry publication when it was needed as well as serving as an industry historian and a friend to many in the bus business.



**ABA Marketplace 2022 Comes Roaring Back (by Mark Szyperki) . . . . .28**

ABA Marketplace in Grapevine, Texas, offers a combination of bus tour and bus equipment activity. This first meeting after the pandemic witnessed strong support by both exhibitors and attendees to gather together and help to reconnect the bus industry.



**The Importance of Marketing (by Dave Millhouser) . . . . .32**

As with any business, bus operator management must wear several hats in order to be successful. You need to be able to sell your charters, tours or routes to the public. This requires some marketing skill and an ability to seek out and use different channels to reach your customers.

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## Cover Photo

In one of his typical bus poses, Bill Luke is photographed beside a Jefferson Lines GM Silversides, most likely in the 1948-1950 era. Bill went on to become a major contributor to the bus industry in many areas over many years. See the article starting on page 19 for our tribute to Bill Luke. RICH BRODERHAUSEN.

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# Equipment News

## CCW Reconditioned Bus for Yamhill County

Complete Coach Works (CCW), the nation's leading bus remanufacturer, has partnered with local governments in Oregon and Washington to enhance their transit operations. Utilizing Oregon and Washington's statewide contracts, transit agencies are able to add safe and affordable remanufactured buses to their fleet.

Yamhill County Transit (YCT) was the first agency to purchase a bus through CCW's Oregon procurement contract. The McMinnville, Oregon transit system's latest order for a remanufactured 2003 30-foot Gillig low-floor transit bus follows three 30-foot and two 35-foot remanufactured Gillig buses purchased through the Oregon statewide contract in 2020. YCT is adding this full-size, two-door Gillig transit bus for increased passenger capacity and easier, more convenient passenger boarding.

"YCT has spent the last five years making improvements to our fleet. The new Gillig buses are a great addition. It is our first experience with rehabbed buses, and we are pleased we made the decision to work with CCW. The bus procurement process went smoothly, the CCW staff were great to work with and their technicians resolved issues quickly. We look forward to a long working relationship with CCW," said Cynthia Thompson, YCT's transit manager.

The bus selected by YCT will be remanufactured to the agency's specifications at CCW's headquarters and plant in Riverside, California. The bus will include a new driver seat and flooring, interior and exterior LED lighting and an ADA-compliant wheelchair ramp. CCW will also install a 2007 Cummins Recon clean-diesel ISL engine and rebuilt Allison B400R transmission, as well as providing YCT decal branding on the bus.

Founded in 2012, YCT operates local bus routes in the cities of McMinnville and Newberg, as well as commuter bus routes to Hillsboro and Tigard in the Portland metropolitan area, and reached its two million rider mark in 2019. YCT reinstated all service routes in November and is experiencing ridership return to pre-pandemic levels.

"CCW is honored to be an authorized vendor on both the Oregon and Washington statewide contracts, and we are especially pleased to have Yamhill be among the first to mark this milestone with us," said Jim Paul, CCW's regional sales manager. "CCW takes pride in offering just-in-time deliveries and statewide contracts that drastically shorten the solicitation bid process as agencies can order what they need in an expedited timeframe."

The Oregon contract puts CCW on the list of dealers for remanufactured buses and fuel conversion services and is open to all transit authorities, agencies, state universities, community and technical colleges and

federally-funded institutions in Oregon as well as state entities in Idaho and Alaska. CCW's Washington contract includes rebuilds, refurbishments and repowers including battery-electric. Transit agencies in Idaho, Alaska and Iowa are also allowed to buy off the Washington contract.

"We believe state cooperative purchasing contracts highly benefit prospective clients and look forward to securing these types of contracts with additional states," added Paul. "And until then, other large and smaller-town transit systems elsewhere in the country can still benefit from our remanufacturing and repower services because we are committed to doing whatever it takes to precisely meet the transit needs of our customers, while saving them time and money."

Complete Coach Works, headquartered in Riverside, California, is the largest bus remanufacturing and rehabilitation company in the United States, with more than 34 years in the transportation industry. A pioneer in the field of alternative fuel and hybrid vehicle technology CCW has always worked to provide clean vehicles through innovative design and engineering, and it unveiled the world's first remanufactured all-electric, battery-powered bus in 2012. For jobs of any size, CCW's team of more than 350 experts provide cutting edge products and exceptional customer service.

In 2021, Complete Coach Works, along with Shuttle Bus Leasing, Transit Sales International and D/T Carson Enterprises, wholly-owned subsidiaries of Carson Capital Corp., transitioned to an Employee Stock Ownership Corporation.

## Prevost Debuts New Customer-Focused Web Site

Prevost is announcing the relaunch of its Web site, [prevostcar.com](http://prevostcar.com). The redesigned Web site incorporates new imagery with streamlined menus to create an outstanding user experience. It explains how Prevost creates The Ultimate Experience™ for customers by outlining the Ultimate Ride, Ultimate Pride and Ultimate Peace of Mind.

The site features in-depth information on all models and extensive aftermarket information and is optimized for mobile users. Visitors will be able to find exactly what they are looking for in record time. The new site represents all equipment and services that Prevost offers including its pre-owned inventory, aftermarket promotions, technical

Yamhill County Transit has added another CCW-remanufactured 30-foot, low-floor bus to their fleet. This follows three 30-foot and two 35-foot remanufactured transit buses that were purchased through the Oregon statewide contract in 2020. Founded in 2012, Yamhill County Transit operated in McMinnville and Newberg as well as commuter routes in the Portland metropolitan area.



## Equipment News

publications, and it links to the newest addition, a new motor home site at [prevostmotorhomes.com](http://prevostmotorhomes.com).

"The new site will feature all the things that make Prevost The Ultimate Experience™," said Michael Power, director of marketing and communications. "It defines all aspects of the Ultimate Ride, the Ultimate Pride and the Ultimate Peace of Mind. When these things come together, customers receive the Ultimate Experience."

The Ultimate Ride is centered around providing the absolute best in coaches and other equipment features. The Ultimate Pride is reaffirming to customers the Prevost brand and other industries that use the products such as entertainers, motor homes and leading coach operators throughout North America. The Ultimate Peace of Mind results from

having the business programs and after-sales service support needed to keep coaches up and running.

Prevost invites visitors to explore the new Web site and take a few extra moments to see the new motor home site, explore motor home lifestyle and events, get an introduction to the five major motor home converters and to understand why Prevost is the foundation owners prefer for their motor home.

Prevost has provided coach solutions for nearly a century with an uncompromising commitment to quality a drive for constant innovation and improvement and education to safety and sustainability in every business aspect. Today, Prevost is one of North America's largest producers of premium intercity touring coaches and is the world leader in the production of high-end motor home and

specialty conversion coaches. Customer support is secured via the largest service network in the motorcoach industry with 17 OEM-owned and operated service centers across North America, a specialized customer support team with more than 260 years of industry experience and 60 mobile service vans. Prevost manufacturing facilities are located in Sainte-Claire, Quebec, Canada.

Prevost is part of the Volvo Group, one of the world's leading manufacturers of buses, trucks, construction equipment, power solutions for marine and industrial applications, financing and services that increase customer uptime and productivity. For more information visit [www.volvogroup.com](http://www.volvogroup.com).

### NJ Transit Order for NFI Natural Gas Buses

NFI Group Inc. (NFI), a leading independent bus and coach manufacturer and a leader in electric mass mobility solutions, on February 4 announced that its subsidiary New Flyer of America Inc. (New Flyer) has received a firm order from the New Jersey Transit Corporation (NJ Transit) for eight zero-emission, next generation Xcelsior CHARGE NG™, 40-foot, heavy-duty transit buses with options to purchase up to 75 more battery-electric buses under a five-year contract.

The new contract advances NJ Transit's zero-emission (ZEB) bus program to reach the goal of transitioning to a 100 percent ZEB fleet by 2040, aligned with Governor Murphy's Energy Master Plan. NJ Transit is America's third largest public transit agency, connecting New Jersey, New York and Philadelphia, providing nearly 270 million annual passenger trips pre-pandemic, with an active fleet of more than 2,200 buses.

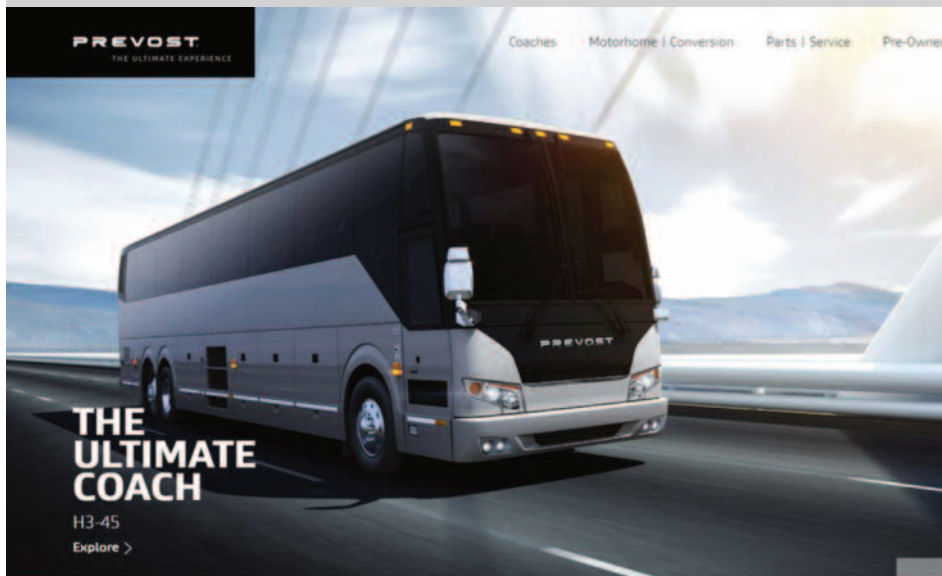
"With nearly 2,300 transit buses and motorcoaches delivered since 2001, NJ Transit has relied on NFI's advanced technology for decades. Today, we are powering its transition to clean, battery-electric mobility," said Chris Stoddart, president, North American Bus and Coach. "Our lighter, longer range and fully-accessible Xcelsior CHARGE NG is our most advanced EV available, and will immediately reduce greenhouse gas emissions. Ultimately, we are advancing NJ Transit's clean energy goals while delivering sustainable, quieter mobility in the greater New Jersey community."

New Flyer's Xcelsior CHARGE NG™ battery-electric bus delivers up to 525 kWh of power and features a new lightweight electric traction drive system providing up to 90 percent energy recovery. For more information visit [newflyer.com/ng](http://newflyer.com/ng).



New Flyer has received an order from New Jersey Transit for eight 40-foot zero-emission Xcelsior CHARGE NG™ buses. There are options to purchase up to 75 additional buses under a five-year contract. NJ Transit has plans to transition to a total zero-emission fleet by 2040.

Prevost recently relaunched a new customer-focused Web site. With new imagery and streamlined menus, the new Web site is designed to provide an outstanding user experience. The site offers information on Prevost bus models as well as extensive aftermarket information.



## Equipment News

NFI is a leader in zero-emission mobility with electric vehicles operating (or on order) in more than 80 cities in five countries. NFI offers the widest range of zero-emission battery and fuel cell-electric buses and coaches, and its vehicles have completed more than 50 million EV service miles.

Today, NFI supports growing North American cities and scalable, clean and sustainable mobility solutions through a four-pillar approach that includes buses and coaches, technology, infrastructure and workforce development. NFI also operates the Vehicle Innovation Center (VIC), the first and only innovation lab of its kind dedicated to advancing bus and coach technology and providing workforce development. Since opening late 2017 the VIC has hosted more than 300 interactive events, welcoming 4,000 industry professionals for EV and infrastructure training.

Leveraging 450 years of combined experience, NFI is leading the electrification of mass mobility around the world. With zero-emission buses and coaches, infrastructure and technology, NFI meets today's urban demands for scalable smart mobility solutions. Together, NFI is enabling more livable cities through connected, clean and sustainable transportation.

With 8,000 team members in nine countries, NFI is a leading global bus manufacturer of mass mobility solutions under the brands New Flyer® (heavy-duty transit buses), MCI® (motorcoaches), Alexander Dennis Limited (single- and double-deck buses), Plaxton (motorcoaches), ARBOC® (low-floor cutaway and medium-duty buses) and NFI Parts™. NFI currently offers the widest range of sustainable drive systems available, including zero-emission electric (trolley, battery and fuel cell), natural gas, electric hybrid and clean diesel. In total, NFI supports its installed base of more than 105,000 buses and coaches around the world.

New Flyer is North America's heavy-duty transit bus leader and offers the most advanced product line under the Xcelsior® and Xcelsior CHARGE® brands. It also offers infrastructure development through NFI Infrastructure Solutions™, a service dedicated to providing safe, sustainable and reliable charging and mobility solutions. New Flyer actively supports more than 35,000 heavy-duty transit buses (New Flyer, NABI and Orion) currently in service, of which 8,600 are powered by electric motors and battery propulsion and 1,900 are zero-emission. Further information is available at [www.newflyer.com](http://www.newflyer.com).

### Euro Bus Expo in Birmingham

After a three-year wait, the bus and coach industry is eagerly anticipating the



Euro Bus 2022 is scheduled to take place in Birmingham, England from November 1-3. Expectations are that there will be approximately 270 exhibitors and as many as 130 buses on display. In addition to the displays, Euro Bus 2022 will include many seminars and expert speakers.

return of its principle trade show, Euro Bus Expo, taking place at the NEC Birmingham on November 1-3. The major exhibition, which needs no introduction to the industry it serves, is set to return with a renewed vigor and spotlights on innovation, decarbonization and the future of passenger transport.

This year's event is set to be the most important yet, with new features designed to showcase groundbreaking product and service developments spanning the entire supply chain, not least the latest buses, coaches, midi- and mini-vehicles.

With strong support from leading manufacturers, converters and dealers, the show is expected to bring together 130+ vehicles from marques including Alexander Dennis (which will be displaying its double-deck hydrogen fuel cell-electric Enviro400FCEV), BASE Coach Sales, Equipmake, GM Coachwork, Ilesbus, Irizar UK, London Hire, MAN Truck & Bus, Nu-Track, Pelican Bus and Coach, PHVS Minibus & Fleet Suppliers, Scania (Great Britain) Ltd., Stanford Coachworks, Switch Mobility, Treka Bus and Volvo Group (UK) Ltd.

Following the success of its debut at Coach & Bus UK 2019, the Zero Emission Zone will give visitors the opportunity to experience fleets of the future first-hand. The Zone will highlight the latest vehicles designed to entirely decarbonize passenger travel, to support the UK's goal to reach net zero by 2050.

Alexander Dennis, Equipmake, London Hire, Pelican Bus and Coach, Switch Mobility

and Volvo Group are just some of the big names that will be demonstrating vehicles in the dedicated Zone – with more to be announced soon.

Says Graham Vidler, CEO of industry trade association and official show partner, Confederation of Passenger Transport (CPT): "With the road to net zero at the top of the political agenda, operators and manufacturers know how crucial it is that we act now to achieve ambitious targets and tackle climate change. It is great to see that Euro Bus Expo will be looking closely at how our industry can play its part in decarbonizing transport. The event is an industry staple that has been sorely missed; this year will be an opportunity to reconnect and continue to have important discussions around the top challenges facing us today."

Plans are already well underway for vehicle demonstrations. Says first-time Euro Bus Expo exhibitor Ian Foley, managing director at Equipmake: "We are looking forward to meeting new and existing clients and will be showcasing our electric double-deck Jewel E in partnership with Beulas and Agrale, built to a provincial specification with a collaborative operator."

Visitors will also be able to experience one of the Yutong battery-electric models from Pelican Bus and Coach, and the latest range from Switch Mobility. These demonstrations will not only showcase the carbon neutral credentials, but also the very latest features designed to improve the passenger experience, encourage use of public transport and lower operating costs.

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Says Peter Freedman, chief marketing and sustainability officer at Switch Mobility: "Euro Bus Expo has always been a standout bus and coach exhibition, and the focus on zero emission buses this year fits with the emphasis we are placing on zero carbon transportation. We look forward to being able to demonstrate how a move to electric vehicles can reduce the total cost of bus ownership."

An anticipated 270 exhibitors will be showcasing everything needed to run a fleet of buses, coaches, midi- and mini-vehicles. With development ongoing up and down the supply chain, innovation will be a big theme this year.

Prominent technology suppliers including Alfatronix, CitySwift, Distinctive Systems, Flowbird Transport Intelligence, Freeway Fleet Systems, Geotab UK, Icomera UK, INIT, Jema, Journeo, MiX Telematics in Europe, NotLost, Passenger Technology Group, Rise Digital Media, Roeville, Streamax, Ticketer, Timespace Technology, TransMach Systems and Webfleet are among the plethora of exhibitors already confirmed.

Of course, innovation is not limited to technology. To highlight the latest great ideas

driving the sector forward – benefitting operating businesses and passengers alike – the show will see the introduction of the Innovation Challenge (first debuted at Coach & Bus UK 2019). Visitors will be voting for their favorite new initiatives, with exhibitors taking the stage in the Masterclass Theatre to pitch their new products and services.

As well as helping to launch thousands of new vehicles and products onto the market, Euro Bus Expo is renowned for its free seminar program. The Masterclass Theatre will once again host a range of expert speakers who will share the latest need-to-know information and perspectives from across the sector. Leading industry bodies and operators will discuss the latest hot topics in a variety of keynotes, presentations and panel discussions. Previous speakers have included representatives from CPT, DVSA, Transport Focus, Transport for London, Zemo Partnership; and operators including Go-Ahead Group, Greys of Ely and Transdev Blazefield.

Euro Bus Expo attracts 9,000 professionals, and this year will be no exception as the industry comes together for its first major gathering in more than three years. Says event director Helen Conway: "The show is vital to the bus and coach industry, who will undoubtedly be out in force for its return.

Visitors will discover all the latest insights, technologies, products and services needed to enhance their business and reduce fleet emissions. It's centrally located, easily accessible and surrounded by options for networking into the evening including the co-located routeone Awards. It's simply an unmissable opportunity to reconnect."

Euro Bus Expo is the largest UK coach, bus and mini-vehicles exhibition, a key fixture on the industry's calendar and always a sell-out. If you have not already secured yours stand, contact Sales Manager Martin Laverton at [mlaverton@divcom.co.uk](mailto:mlaverton@divcom.co.uk).

### Battery-Electric Van Hool Coach Tests in the Northwest

ABC Companies, a leading provider of motorcoach, transit and specialty passenger transport vehicles in the U.S. and Canada, has recently completed an unprecedented long-distance road trip with customer, MTR-Western, a leading charter bus and shuttle transport company serving the Pacific Northwest. ABC Companies provided a new 100 percent battery-electric Van Hool CX45E motorcoach to facilitate the pilot program road test. This demonstration unit is the same make and model ABC began delivering to customers in early 2021 and is used for ongo-

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## Equipment News

ing data collection and performance benchmarking with customer specific applications.

The demonstration covered nearly 1,700 miles round trip, starting in Newark, California to the destination in Seattle, Washington, and then returning to Newark, California. During several legs of the journey, various MTRWestern passenger groups experienced a unique trip aboard the 100 percent battery-electric Van Hool CX45E, traveling to destinations throughout northern California and the Pacific Northwest. Given the extended distance of this demonstration, existing publicly available charging stations were used along the route. The motorcoach averaged 280 miles of total projected range between charges over the course of the trip, with some legs projecting well in excess of 300 miles. These ranges while in commercial operation are continuing to raise the bar for EV commercial passenger vehicles and reflect what is available now through ABC Companies.

This demonstration was also designed to test the viability of charging stations along a typical route. The data and learning focused on equipment performance and commercial grid access. Charging stations were available at regular intervals with plenty of range to spare, although several locations were not designed to readily accommodate larger passenger vehicles. While the chargers were fully capable of recharging the Van Hool CX45E, it is clear the physical layouts of many stations were not prepared for the pace at which ABC is deploying these unique vehicles into the market. Charging times were shorter than projected, averaging 2.5 to three hours, as the vehicle never used more than 65 percent of the available battery on each leg of the trip, due to the energy density of the standard Proterra-powered battery packs.

With this leap forward in EV passenger range, Roman Cornell, ABC president/chief commercial officer, was asked if there were any plans to formally set or announce EV distance records. "Between the almost 1,700 miles of total round-trip distance covered, and with some legs of the trip projecting over 300 miles between charges, we were asked multiple times if we should apply for a 'world record.' The reality is, we continue to beat our own records as we transport the CX45E and the upcoming Van Hool TDx25E double-deck across country utilizing the existing publicly available grid. Our customers who have the CX45E in their fleets also continue to see increases in range as their drivers improve their ability to manage energy usage. We utilize real time telematics measuring everything from energy consumption, charge rates, vehicle performance and more, so we are able to work with our customers and continually improve energy consumption and therefore range. Our continued success with the Proterra-powered electric drivetrain just keeps pushing the current boundaries for zero emissions motorcoach travel, making claims or records, somewhat irrelevant. These coaches perform as stated, period," he said.

Specifically designed for large group transport and travel, the Van Hool CX45E is ABC's battery-electric version of its flagship premium passenger CX45 clean diesel model. Starting with the highly efficient and proven Van Hool CX45 design, the development of an electric version brings a proven package for customers who have begun reducing their fleet carbon emissions. Onboard premium passenger and driver amenities offer enhanced drivability, passenger comfort and performance – all integrated in a zero emissions platform, designed for environmental sustainability.

Traveling at an average speed of 54 m.p.h., through challenging terrain including elevations of 5,600+ feet through the picturesque Cascade-Siskiyou National Forest and with an average temperature of 55 degrees, ABC telematics continually capture real time data to measure operator and equipment performance during operation. Key performance indicators including total kWh consumption, charge rates, kWh regeneration and more, are analyzed against initial projections and benchmarked with thousands of miles of data from other CX45Es already in operation. This demonstration with MTRWestern met and exceeded expectations providing more quantifiable data for customer specific applications, allowing operators to make informed decisions and optimize operations. Moreover, the coach's low center of gravity, quiet, almost noise-free ride, delivers a premium driver and rider experience, at lower operating costs and zero emissions. Even on steep grades, the CX45E easily glided with moving traffic and utilized regenerative braking during extended downhill braking situations, generating substantial energy that went back into the battery packs further increasing efficiency and range.

#### Performance highlights:

- Round trip averaged an industry leading 280 miles of projected range per charge while in commercial operation
- Total energy used 3,400 kwh vs 262 gallons of equivalent diesel fuel
- Significant energy cost savings depending on electric rates at time and location of charge
  - 2.3 metric tons of CO<sub>2</sub> emissions avoided during demonstration

"We are thrilled to be among the first operators in the U.S. to offer true zero-emission green travel to our customers," said



MTRWestern, a bus operator in the Pacific Northwest, recently put a battery-electric Van Hool CX45E coach on a route to test the viability of operating electric coaches in scheduled service. The overall trip covered nearly 1,700 miles from Newark, California to Seattle, Washington and return to Newark. Existing public stations were used for charging and the coach averaged 280 miles between charges.



Todd Paulson, director of operations at MTR-Western. “Our groups were extremely excited to experience EV travel firsthand and their feedback provides critical insight as we test EV integration within our fleet,” continued Paulson. “Both passengers and drivers were impressed by the incredibly quiet ride, and our drivers were especially pleased with the smooth coach handling and power, particularly during elevation gains. They also reported relative ease-of-use at all charging points.” Charging on the grid was easily managed thanks to the 280+ mile range of the CX45E. The CX45E uses a standardized J1772-CCS Type 1 charger that allowed for maximum flexibility for charging stops over the two-day period. Charging site sizes and layouts generally do not support a commercial vehicle of this size, highlighting the need for future looking charging infrastructure providers to incorporate larger parking spots with wide turning radius or pull-through access. As future charging facilities are designed, they should take notice of the advancements in this quickly growing industry as ABC Companies is already transporting these vehicles on the public grid.

“The CX45E’s performance over the trip was truly impressive,” said Paulson. “This is a great success that demonstrates the power and reliability of electric transport using the charging eco-system that exists today. ABC’s contribution made this unprecedented journey possible, and we are proud to demonstrate our commitment to pursuing carbon neutral solutions to the industry and our customer base.”

“As the grid infrastructure continues to expand, we’re excited to continue pioneering the future of electric passenger transport for the largest to the smallest groups as fleets require,” said Cornell. “With so many opportunities, from micro-transport to mobility-as-a-service, contract operations, employee shuttle service, large group tours, charters and more, ABC’s EV strategy is focused on helping customers of all fleet sizes leverage the competitive advantages of zero emissions passenger vehicles. From the operational cost savings, to new revenue opportunities, ABC is bringing solutions to customers who want to improve their businesses, while improving the communities where they are based. It is an exciting time, and ABC Companies is proud to be leading this revolution within our industry.”

The Van Hool CX45E is offered through ABC’s SVT (Specialty & Technologies) division. The SVT division is focused on discovering and bringing innovative solutions and strategies to market that offer transformative mobility options to ABC customers. Focusing on seamlessly onboarding cutting edge products and technologies to ensure smooth

San Francisco Metropolitan Transportation Agency has ordered three electric Nova Bus LFSe+ buses. These buses will be equipped with an electric drive motor coupled by BAE Systems’ next generation power electronics. They are expected to provide better fuel economy, longer driving range and reduced maintenance costs.



operations from day one, the SVT team is rapidly emerging as the leading provider committed to simplifying EV fleet integration for private and public operations. As ABC actively onboard new clients, a focus on education, training, equipment operation and infrastructure guidance are featured components of the company’s proprietary “Plug into Savings” program, which was launched in 2020.

“Working and testing with forward thinking companies like MTRWestern allows ABC to continue refining our industry exclusive ‘Plug into Savings’ electric vehicle onboarding program. Between the training, real time monitoring, charger interoperability, energy use strategies and more, the program takes the complexity away from the customers, so they can focus on the immediate benefits of zero emission vehicles in their fleets,” said Thom Peebles, vice president, ABC companies.

### San Francisco Orders Nova Electric Buses

Nova Bus, a leading North American transit bus manufacturer, has announced a new order for three electric Nova Bus LFSe+ vehicles by the San Francisco Municipal Transportation Agency (SFMTA).

“We look forward to introducing the Nova Bus LFSe+ buses to the San Francisco community. These zero-emission buses will help keep the city air cleaner as well as provide a quieter transit experience and a healthier environment to its passengers,” said Martin Larose, president of Nova Bus. “We are proud to be working with the San Francisco Municipal Transportation Agency and help lead the charge toward the electrification of transit in California and across the USA.”

With an electric drive motor, coupled by BAE Systems’ next generation power electronics, these electric buses provide better fuel economy, longer driving range, reduced

maintenance costs and reduced greenhouse gas emissions. The LFSe+ is the perfect pairing of Nova Bus’ proven expertise with the latest innovations in clean and sustainable technologies.

“SFMTA is proud to be a leader in addressing the climate crisis,” said Julie Kirschbaum, director of transit for SFMTA. “We’re committed to embracing the greenest fleet possible and getting people out of private vehicles and into more sustainable modes of transportation.”

“The widespread adoption of electric vehicles continues – including transit buses,” said Steve Trichka, vice president and general manager of Power & Propulsion Solutions at BAE Systems. “Transit authorities value easier maintenance and lower operational costs. Communities like the reductions in harmful emissions and traffic noise, while riders enjoy the cleaner air, quieter ride and lower carbon footprint.”

Nova Bus is committed to always improving product and processes to reduce pollution and waste in every aspect of business, and the LFSe+ is the latest demonstration on that commitment.

Nova Bus is a leading provider of sustainable transportation solutions in North America and is part of the Volvo Group. Its portfolio includes electric buses, hybrid electric buses, high-capacity vehicles and integrated intelligent transport systems. As part of its Electro Mobility strategy, Nova Bus is moving forward with the electrification of key vehicle components to reduce fuel consumption and emissions.

For more information regarding Nova Bus products and services, visit [www.novabus.com](http://www.novabus.com).

For further information, contact Christos Kritsidimas at (438) 350-0454 or by e-mail at [christos.kritsidimas@volvo.com](mailto:christos.kritsidimas@volvo.com).

### CVSA Supports National Roadway Safety Strategy

The U.S. Department of Transportation (DOT) has announced the launch of its National Roadway Safety Strategy (NRSS) to address the crisis on the nation's roadways. Almost 95 percent of the nation's transportation deaths occur on the roadways, and they are on the rise.

"Those lost are our family members, our friends, our colleagues, our neighbors," said Transportation Secretary Pete Buttigieg. "Americans deserve to travel safely in their communities. Humans make mistakes and as good stewards of the transportation system, we should have in place the safeguards to prevent those mistakes from being fatal. Zero is the only acceptable number of deaths and serious injuries on our roadways."

The NRSS incorporates the principles of an integrated Safe System approach with the goal of eliminating fatalities and injuries on our highways, roads and streets. The Safe System approach requires supporting a safety culture that places safety first and foremost in road system investment decisions. There are six principles that form the basis of the Safe System approach: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive and redundancy is crucial.

"The membership of the Commercial Vehicle Safety Alliance (CVSA) is comprised of commercial motor vehicle safety inspectors and officials and motor carrier industry representatives who are dedicated to transportation safety," said CVSA Executive Director Collin Mooney. "Our membership is committed to supporting the U.S. DOT in its commitment to zero fatalities on our roadways through the implementation of identified safety priorities and the Safe System approach."

Some of the priorities identified in the NRSS specific to the commercial motor vehicle enforcement and motor carrier industry communities include:

- Implementation of the October 2021 final rule that requires state driver's licensing agencies to access and use information obtained through the Drug and Alcohol Clearinghouse and take licensing actions against commercial motor vehicle drivers who have drug or alcohol violations in the system are not cleared to return to duty
- Improved accuracy of commercial driver's license (CDL) driver records and the identification of additional opportunities to use these more accurate records to take unsafe commercial motor vehicle drivers off the road more expeditiously
- Increased highly visible commercial motor vehicle traffic enforcement targeting risky driving behaviors, especially speeding; the department identified speed enforcement, deployed equitably and applied appropriately to roads with the greatest risk of harm due to speeding, as a tactic that may provide significant safety benefits and save lives
- The continued commitment to identifying high-risk companies and operators of commercial motor vehicles using a data-driven and performance-based approach, including roadside commercial motor vehicle safety inspections.

The department's renewed commitment to roadway safety encompasses priority actions in five categories: safer people, safer roads, safer vehicles, safer speeds and post-crash care. The recent passage of the Bipartisan Infrastructure Law provides substantial resources and tools to improve safety and save lives and is a prime opportunity to leverage the NRSS.

"As we embark on this reinvigorated effort, we are relying on our partners to also identify and commit to near-term actions that will help make our collective efforts to reach zero a reality," added Buttigieg.

"On behalf of the alliance, I'd like to thank Transportation Secretary Buttigieg and the U.S. Department of Transportation for their leadership and action in this undertaking," said Mooney. "We look forward to working together toward our shared vision of zero roadway deaths."

### NFI Hybrid Buses for Mississauga

NFI Group Inc. (NFI), a leading independent bus and coach manufacturer and a leader in electric mass mobility solutions, recently announced that Mississauga Transit (MiWay) has awarded NFI subsidiary New Flyer Industries Canada ULC (New Flyer) a two-year contract for 127 Xcelsior® 40-foot hybrid-electric buses and 28 Xcelsior 60-foot hybrid-electric buses (76 equivalent units or EUs), for a total of 203 EUs.

Based in Mississauga, Ontario, MiWay is Ontario's third-largest municipal public transit system that operates 500 buses, delivering more than 55 million annual rides.

New Flyer equips all 165 hybrid-electric buses with BAE Systems next-generation Modular Accessory Power System (MAPS), offering a multi-functional and lightweight modular design that delivers best-in-class performance. In addition to MAPS, buses are configured with geofencing technology, which uses GPS navigation to define the transit route sections where hybrid-electric buses operate in an electric vehicle mode.

The low-emission hybrid-electric Xcelsior® buses with MAPS technology onboard will deliver increased fleet efficiency, reliability and sustainability. Through this order, MiWay is helping to fulfill its 40-year strategic plan, focused on developing a transit-oriented city through expanding its transit system and practicing environmentally responsible approaches to reduce emissions and improve air quality.

"NFI has been leading hybrid-electric innovation for more than 20 years, supplying more hybrid-electric buses across North America – in more configurations – than any other manufacturer," said Chris Stoddart, president, North American Bus and Coach. "Our partnership with MiWay spans 45 years, having delivered 550 buses since 1976. Today, we continue to support MiWay in its transition to cleaner transportation by leveraging hybrid-electric mobility that will immediately reduce greenhouse gas emissions in the greater Mississauga community."

New Flyer's hybrid-electric buses bridge the transition between traditional combustion engines and zero-emission propulsion, reducing NOx emissions by up to 50 percent and particulate matter levels by up to 100



Mississauga Transit has placed an order for 165 electric buses with New Flyer. Included in the order are 127 Xcelsior® 40-foot hybrid-electric buses and 28 Xcelsior 60-foot hybrid electric buses. The buses will be operated by MiWay that operates 500 buses in the Mississauga area west of Toronto.

## Equipment News

percent while also lowering fuel use and maintenance costs. For more information, visit [newlywed.com/hybrid](http://newlywed.com/hybrid).

### VTA to Charge Buses with Solar-Powered Microgrid

The Santa Clara Valley Transportation Authority (VTA) will install an innovative clean energy microgrid and EV fleet charging system with Proterra and Scale Microgrid Solutions to help power the agency's transition to a 100 percent zero-emission bus fleet, following a grant that was awarded for the project by the California Energy Commission recently.

In the event of an extended power outage, such as a public safety power shutoff, electricity stored in the microgrid's battery storage system can provide back-up power at VTA's Cerone bus yard to allow the agency to continue operating battery-electric buses, serving riders and providing emergency transport if needed.

The solar PV and battery energy storage system will give VTA operational flexibility on when to purchase the utility power needed to charge its vehicle fleet, saving the agency on its electricity costs and further reducing its total operating costs compared to continued diesel bus operations.

During a typical day, the clean energy microgrid will allow VTA to produce low-cost renewable energy and purchase off-peak energy from PG&E that is then stored in the battery storage system for consumption during peak price periods. The energy cost savings gained through the project can be put toward the agency's other operating needs, like transit service.

Expected to come online in late 2023, the project showcases how clean energy paired with fleet-scale EV charging can enable the adoption of fully-electric vehicle fleets and further reduce greenhouse gas emissions.

In conjunction with Proterra and Scale Microgrid Solutions, VTA will deploy approximately 1½ megawatts of solar on-site via available rooftop space and an overhead carport canopy at the agency's Cerone bus yard. The solar PV is paired with a battery storage system that can store four megawatt hours of usable electricity and one megawatt of peak output power to provide back-up electricity at the bus yard for up to 20 hours of emergency operations. For extended outages, VTA has the option to easily connect a temporary generator to provide additional backup power for fleet operations. The agency will also install two Proterra 1½ megawatt fleet chargers to power electric transit buses.



The Santa Clara Valley Transportation Authority will install an innovative clean energy microgrid and electric vehicle fleet charging system to help its transition to a zero-emission bus fleet. Power generated from the grid will allow VTA to reduce power purchases to charge its vehicles. It will also allow VTA to continue operations in the event of an extended power outage.

The microgrid and charging infrastructure will be linked together by a switchgear and controls package designed by Schneider Electric for robust and dependable operations.

Consistent with the California Air Resources Board's requirement for public transit agencies to transition to 100 percent zero-emission fleets by 2040, VTA is working to achieve this important goal by 2036.

### Vicinity Supports Calgary Electrification

Vicinity Motor Corp., a North American supplier of commercial electric vehicles, on February 8 announced the receipt of an initial C\$2,570,000 grant from Sustainable Development Technology Canada (SDTC), a foundation created by the Canadian gov-

ernment, for the development of zero-emission transit buses.

SDTC helps Canadian entrepreneurs accelerate the development and deployment of globally competitive clean technology solutions. The non-repayable grant from SDTC will help Vicinity Motor to introduce its new all-electric, true low-floor wheelchair-accessible (fully ADA-compliant), mid-sized, medium-duty bus. This project creates an affordable new class of mid-sized, true low-floor buses, providing maximum versatility and an environmentally responsible alternative to buses with traditional combustion engines.

"We are honored and appreciate the significant initial support from SDTC to accel-

Sustainable Development Technology Canada, a foundation of the Canadian government, has awarded a grant of C\$2,570,000 to Vicinity Motor Corp. The grant will help Vicinity Motors introduce its new all-electric, low-floor, wheelchair-accessible, mid-size, medium-duty bus. The new buses will allow municipalities to provide transit service that is both sustainable and accessible to passengers.



## Equipment News

erate the development of the innovative design of the Vicinity Lightning EV which will mitigate exposure to energy and carbon costs," said William Trainer, founder and chief executive officer of Vicinity Motor Corp. "As cities and governments around the world continue to establish climate goals, they are rapidly committing the funding needed for zero emission transit options like our breakthrough Vicinity Lightning™ EV.

"SDTC focuses developing and deploying new technologies with the potential to transform the environmental and economic prosperity of Canada. With this complementary mission between us, we look forward to our continued relationship with SDTC as a valued partner to enhance our growth and encourage adoption of electric vehicles within the Canadian market," concluded Trainer.

Leah Lawrence, president and CEO of SDTC, added: "Vicinity Motor's new Lightning EV bus will give municipalities a way to provide transit options that are both sustainable and accessible to all citizens. SDTC is proud to support Vicinity Motor Corp. as they continue to innovate and find cleaner options for moving people."

SDTC supports companies attempting to do extraordinary things.

From initial funding to educational support and peer learning to market integration, SDTC is invested in helping small and medium-sized businesses grow into successful companies that employ Canadians

from coast to coast to coast. SDTC is relentlessly focused on supporting companies to grow and scale in an increasingly competitive marketplace.

The innovations SDTC funds help solve some of the world's most pressing environmental challenges: climate change, regeneration through the circular economy and the well-being of humans in the communities they live in and the natural environment they interact with.

### BYD Introduces New Battery-Electric School Bus

BYD ("Build Your Dreams"), the world leader in electric vehicles, on January 27 introduced its Type A battery-electric vehicle, a zero-emission school bus that combines design, performance and safety together in a package built to meet the needs of students and administrators.

The BYD Type A offers innovative vehicle-to-grid technology, allowing the vehicle to serve as a power storage resource when it is not transporting students. The Type A can seat up to 30, and can be equipped with an ADA liftgate capable of lifting 800 pounds. The bus has a range of up to 140 miles on a single charge.

"This is a timely solution: BYD's Type A battery-electric school bus is designed to be there for school districts 24 hours a day, both as a vehicle and power storage resource," said Stella Li, president of BYD North America. "The BYD combination of top-notch safety features, innovative design

and reliable performance makes this a practical and highly affordable zero-emission solution."

BYD made safety the top priority in its school bus design. Standard safety features include a high strength steel construction body, electronic stability control to aid handling and an electronic braking system to ensure more evenly distributed brake force.

At the heart of the BYD Type A is its lithium iron phosphate battery, the safest and most reliable in the electric vehicle industry.

In addition, BYD adds an additional layer of protection with its Predictive Stop Arm™, which monitors approaching traffic and notifies students as they exit the bus when it is safe to cross.

With length options of 26.7-, 24.5- and 22.9 feet, BYD's Type A battery-electric school bus is perfect for routes with fewer students and for transporting those with disabilities.

BYD buses can be equipped with HSM three-point lap-shoulder belts, integrated child seats and portable restraints. These school bus seats are not only designed to keep children safer, but they have the benefits of improving behavior, reducing bullying and minimizing driver distraction.

With the driver being the first safety element, BYD drew from the experience of thousands of bus operators to enhance comfort and ergonomics in designing the driver's cockpit. The driver's area features comfort seats, a 16.5-inch power steering wheel and telescopic steering column, high level of visibility and easy-to-reach control switches. The driver can also control the air conditioning over the cockpit in addition to controlling the system for passengers.

"Just like our Type D bus introduced last year, our Type A bus bi-directional charging capability is a game changer," said Samuel Kang, BYD's head of Total Technology Solutions. "School buses can be charged overnight when energy demand is low, and clean emission free energy can be fed back into the classroom during school hours when the bus is parked keeping classrooms well-lit and students and teachers plugged in."

BYD offers two kinds of charging solutions to meet different needs. The 150 kw DC charging solution is available with high-charging power and efficiency. BYD also provides 19.2 kw single phase AC charging.

BYD's innovative battery-electric technology can cut fuel costs by as much as 60 percent compared to diesel vehicles. With fewer moving parts and less vibration, main-

BYD recently introduced its Type A battery-electric, zero-emission school bus. It will seat up to 30 students and can be optionally equipped with a liftgate that can lift 800 pounds. The bus will have a range of up to 140 miles on a single charge.

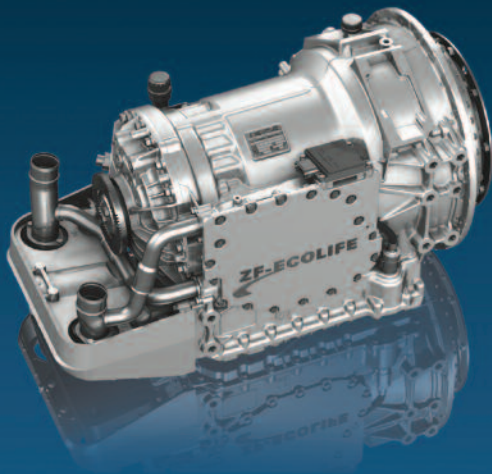


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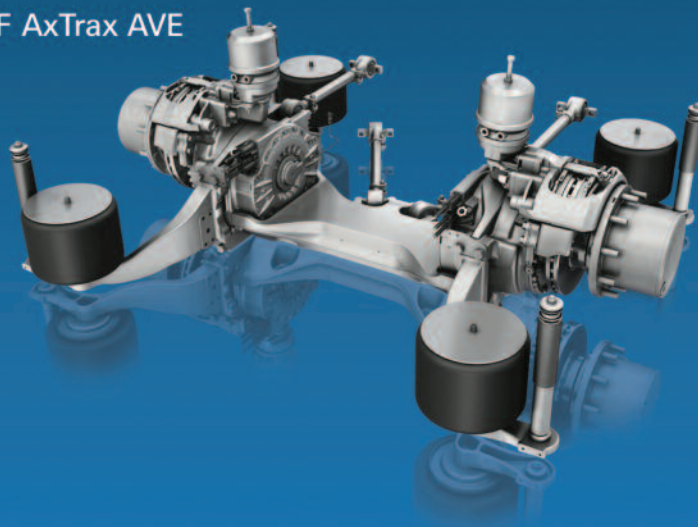
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## New NFI Charger Catalog

The NFI Infrastructure Solutions™ Charger Catalog covers available charging infrastructure to support electric vehicle deployment.

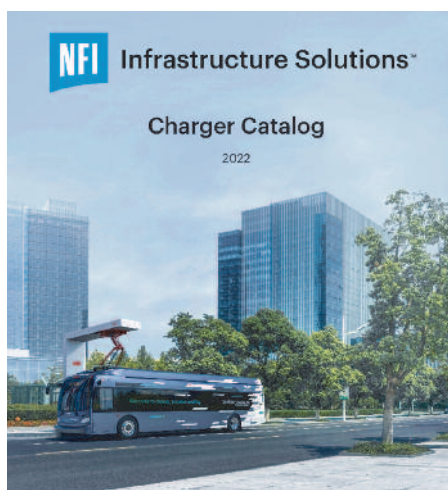
The easy-to-read catalog incorporates product details including charger performance, size, weight and other technical characteristics by type and manufacturer.

Supporting mobility projects from start to finish, NFI Infrastructure Solutions can help you find infrastructure options to fit your needs. To learn more contact [IS@nfigroup.com](mailto:IS@nfigroup.com).

## Largest Nova Bus U.S. Electric Bus Order Goes to Houston

Nova Bus, a member of the Volvo Group and a leading North American transit bus manufacturer, has announced its largest electric bus contract to date. It has been awarded a contract for 20 LFSe+ in addition to 20 options, for a total of 40 electric buses by the Metropolitan Transit Authority of Harris County (METRO), as part of a sustainability initiative. The METRO Board authorized the immediate purchase of 20 of these electric buses, and this order will be their first electric bus purchase on a total fleet of 1,300.

The buses are expected to be in operation by the fourth quarter of 2022, and they



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The new NFI Infrastructure Solutions™ Charger Catalog offers a range of available charging infrastructure to support electric vehicle deployment.

will initially have routes that serve communities more affected by carbon emissions and ones that have been chosen by Houston Complete Communities.

With an electric drive motor coupled with BAE Systems' next-generation power electronics focused on efficiency, these electric buses provide reduced maintenance costs and reduced greenhouse gas emissions. Nova Bus continues to invest in new tech-

nologies to provide the value and flexibility its customers and transit operators demand. The LFSe+ is the perfect pairing of Nova Bus' proven expertise with the latest innovations in clean and sustainable technologies.

"This is great news for New York and a big step forward for sustainable transportation," said U.S. Senator Kirsten Gillibrand. "The purchase of 40 of Nova Bus' LFSe+ zero-emission, long-range, electric buses, destined for Texas and built in Plattsburgh, New York, is a culmination of years of innovative design and great planning. Nova Bus' electric bus production is a critical pillar of the North Country's economy and is creating a greener future for transportation."

"Nova Bus creates good-paying manufacturing jobs in the North Country and is an integral part of our regional economy," stated Congresswoman Elise Stefanik. "This newly awarded transit contract is a testament to the skilled employees and hardworking operation at Nova Bus. I will continue to strongly advocate for job creation and North Country manufacturing in Congress."

"Extraordinary news for Nova Bus to start the new year. We are thrilled to be working with METRO in their mission to have 100 percent zero-emission-only bus procurement by 2030 in Houston. This LFSe+ contract is our most important so far in the U.S., and we are proud to continue our significant contribution in electrification of transportation in North America by introducing these zero-emission buses in Houston," said Martin Larose, president of Nova Bus.

## Irizar Presents New Generation of the i4

Irizar is presenting a new generation of the Irizar i4 model – more efficient, sustainable and profitable.

The Irizar i4 is a versatile vehicle, an ideal coach for use in urban settings, for commuting, school transport, corporate or occasional functions. The different versions of this vehicle (H, M, L) strike a perfect balance between accessibility and luggage compartment capacity, according to the needs of each operator. The floors, which can be flat or lowered, and the unobstructed aisles, underline the concept of adaptability. The vehicle is available in length from 10.8 meters to 15 meters.

The new generation Irizar i4 coach, which was presented for the first time at the Busworld 2019 trade fair, now offers significant new features that mainly focus on a major reduction in weight and optimal per axle load distribution. This has resulted in a lighter vehicle, weighing up to 955 kg less, depending on the chosen configuration.

Originally introduced at the 2019 Busworld trade fair, the new i4 coach from Irizar offers new features including weight reduction and optimal axle load distribution. The i4 is available in lengths from 10.8 meters to 15 meters and can provide seating for as many as 63 passengers. The Irizar i4 has been a popular model particularly in commuting, school transport and local operations.



## Equipment News

This highly efficient, sustainable and profitable coach, with its structural redesign and incorporation of optimized and innovative technology solutions, will generate significant fuel savings of up to five percent and, therefore, improvements in CO<sub>2</sub> emissions reductions.

The implemented solutions include the use of high-strength steel and composite materials to replace traditional structural materials, as well as new seats, with weight optimization and greater space between them, thus enhancing passenger comfort and experience.

The innovations that have been introduced to the vehicle have made it possible to offer new seat layouts, providing versatility and maximum adaptation to the customer's needs. The new Irizar i4 model range includes a new coach version, a 13.23-meter vehicle on a 4x2 chassis, with a maximum capacity of 63 seat spaces (59 + 1 PRM), with up to 34 standing places and luggage compartment volume exceeding 6m<sup>3</sup>.

The various door configurations, with single, wide single and double door options, enable lifts to be installed to facilitate access for persons with reduced mobility.

Important safety measures include the option of a radar in the center of the front. The Irizar front headlights with full-LED option offer up to 30 percent more light capacity. The other lighting fixtures are also LED.

This latest generation Irizar i4 is available with diesel, HVO and B100, hybrid and bio-gas or natural gas (CNG or LNG) propulsion systems, depending on whether it is an exclusively Irizar model or a combination of chassis and bodywork.

The Irizar i4 therefore offers a wide range of configuration options and advanced safety systems, plus excellent driver ergonomics and accessibility. It is a highly efficient, sustainable, profitable, reliable and versatile vehicle, which offers a comprehensive response to the demands of metropolitan and suburban service, school or corporate transport.

### 21 Van Hool Battery-Electric Buses for Malmö

Van Hool, an independent manufacturer of buses, coaches and industrial vehicles, has concluded a contract with Nobina, the largest passenger transport company in Scandinavia, for the delivery of 21 battery-electric, 24-meter articulated trambuses of the Exqui.City model. The trambuses will go into service mid-2022 in Malmö (Sweden) for public passenger transport. The vehicles are plug-in, battery-electric and will be charged in the Nobina depot in Malmö.

Filip Van Hool, CEO of Van Hool, said: "This order confirms the confidence that Nobina has in Van Hool. This is a new and important reference for Van Hool and it represents the undeniable proof of the company's technological power. Van Hool is fully

committed to its 100 percent zero emission bus and coach range. We are convinced that the various 100 percent zero emission solutions we offer – battery-electric, trolley and hydrogen – can, depending on the local application, provide an answer to the environmental and sustainability initiatives that public transport companies worldwide are undertaking. As an independent Belgian manufacturer of buses and coaches, with customers all over the world, we have delivered no fewer than 1,200 electrically-powered vehicles. So far Van Hool's strength lies in the fact that we have gained a lot of experience in various complex types of electrically-powered vehicles, including 100 percent battery-electric vehicles and the charging infrastructure that goes with it."

"We feel pride in continuing this journey together with Skånetrafiken and Van Hool, introducing the next generation of 24-meter, fully electric, zero emission tram buses – the first of its kind in the Nordics. Further developing the modern, safe and sustainable public traffic solution in Malmö," said Jens Råsten, fleet manager at the Nobina Group.

The Exqui.City combines the flexibility of a bus with the efficiency of a tram. These trambuses have a distinct futuristic design and a high level of comfort with air conditioning, low noise levels and soft lighting. They offer optimal accessibility with a low boarding height, and easy entry and exit thanks to the four double doors. This type of vehicle is built on a multi-power platform that is now 100 percent zero emission: battery-electric, trolley and hydrogen. This platform makes the Exqui.City, in both the 18- and 24-meter versions, a basis for the use of these different eco-friendly power systems.

With the Exqui.City, available in 18- and 24-meter versions, Van Hool offers a realistic answer to the demand for sale, environmentally-friendly, efficient and cost-effective urban public transport. There are already more than 300 trambuses operating in 17 cities, primarily in Europe but also in Martinique (a French overseas department).

Van Hool is an independent Belgian bus, coach and industrial vehicle manufacturer. The company, which was founded in 1947, is based in Koningshooikt. The vast majority of units produced are destined for Europe and U.S. Van Hool has around 3,300 staff worldwide, the majority of whom work at the production facilities in Koningshooikt (Belgium) and Skopje (North Macedonia).

### Ebusco Receives Order for the French Market

Ebusco, a pioneer and frontrunner in the development of electric buses and charging systems, has signed a contract

Van Hool in Belgium is building 21 battery-electric Exqui.City articulated trambuses for use in Malmö, Sweden. The buses are 24 meters (about 79 feet) long and will operate for Nobina, the largest passenger transport company in Scandinavia. Van Hool offers a wide range of zero-emission power on its buses including trolley, battery-electric and hydrogen.



## Equipment News

with the Metropolo Rouen Normand, France, for a total of up to 80 Ebusco buses. France is a strategically important market for Ebusco and one of its key target markets in its international expansion strategy. The contract comprises four Ebusco 2.2 buses, to be delivered around year-end 2022 and an option to purchase 76 additional Ebusco 3.0 buses, which will be delivered in batches between 2023 and 2026.

Metropole Rouen Normandie (city of Rouen greater area) is, as the PTA (Public Transport Authority) responsible for purchasing the buses. The contract comprises four Ebusco 2.2 buses of 18 meters. Furthermore, the contract entails an option to buy 76 Ebusco 3.0 buses of 18 meters, the first order for 18-meter Ebusco 3.0 buses.

The French market represents a large installed transit bus base and still has a rel-

atively low current electric bus penetration. Therefore, France is one of the key target markets in Ebusco's international expansion strategy.

Peter Bijvelds, CEO of Ebusco, comments: "We are very excited about this new contract. This is an important step in our international expansion. Not only are we significantly strengthening our position in the French market, it is also the biggest order for our revolutionary 3.0 buses to date. The extended delivery schedule, over a period of four years, also supports the visibility and efficient planning in the production capacity. Ebusco and Metropole Rouen Normandie are committed to join forces to showcase in France the benefit of a full electric transit network."

The high capacity of the batteries in combination with the competitive TCO were important considerations for Metropole Rouen Normandy for choosing Ebusco.

Nicolas Mayer-Rossignol, president of Metropole Rouen Normandie, comments: "We are taking a big step in our journey to a climate-neutral future. The electrification of our bus fleet is instrumental in meeting our climate objectives."

### BYD Bus in the Republic of Mauritius

Recently, BYD delivered the first K6 pure electric, semi low-floor bus at Sir Harilall Vaghjee Memorial Hall, Port Louis, the capital city of a small island developing state, the Republic of Mauritius. Operated by the National Transport Cooperation (NTC), the largest local public transport operator, this event also marks BYD's first official pure electric bus on a SIDS (Small Island Developing States) island with very high solar energy irradiance, energized by a 60 kW DC EV charger. The Honorable Pravind Kumar Jugnauth, the Prime Minister of the Republic of Mauritius; Alan Ganoo, the minister of Land Transport and Light Rail; Kavydass Ramano, the minister of Environment; and Rao Ramah, the NTC general manager, witnessed the launching ceremony in the presence of other eminent personalities.

The BYD k6 electric bus will be put into operation as a city shuttle bus, transferring passengers and tourists between Metro Express stations, offering a creative zero-emission green public transportation choice for the public.

Mauritius, the Eden on Earth, is a mountainous and volcanic Indian Ocean island. To better suit the local needs, BYD K6 electric bus applies an advanced in-house powertrain, battery and integrated EV-specific motor controller technologies, making it a


Ebusco recently signed a contract with Metropole Rouen Normandy in France for a total of up to 80 Ebusco buses. Initially, four Ebusco 2.2 buses will be delivered around year-end 2022 with an option to purchase 76 additional Ebusco 3.0 buses later. Both the initial four buses and any additional buses will articulate with a length of 18 meters (about 59 feet).



BYD recently delivered a K6 pure electric, semi low-floor bus to Port Louis on the island of Mauritius. Once a British Colony, the islands are located east of Madagascar in the Indian Ocean. This first electric bus to operate in Mauritius will be used in shuttle service, transferring passengers and tourists between Metro Express Stations.







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vehicle fine-tuned to the road conditions of Mauritius.

BYD's 20-seater K6 electric bus can run up to 225 km with a single charge. Staff can

The Marcopolo facility in Mexico became the second Marcopolo operation to produce their new Generation 8 coach models. An initial delivery was made to V&A Travels International based in the city of Hermosillo, Mexico. This coach features a Volvo chassis, 46 half-sleeper seats, USB sockets, cell phone holders and a length of 15 meters (49 feet).



recharge it at photovoltaic power stations. It equips highly humanized facilities like high backrest seats with ergonomic design, integrated safety cameras, USB charging ports and on-board display screens.

### New Paradiso Generation 8 for Marcopolo

Marcopolo Mexico becomes Marcopolo's second operation in the world to produce the brand's new Generation 8 coach models. At the end of January, the company's executives delivered the first vehicle to leave the line in the municipality of Garcia to customer V&A Travels International, based in the city of Hermosillo, Mexico.

Traditional partner of Marcopolo Mexico, V&A Travels will use the new vehicle on national and international lines in the region of Sonora, Baixo Mexico and in the states of California, Texas and Utah, in the United States. The operator transports people in the mining segment and is specialized in travel between the two countries.

"For us, it is very important to start producing a line as innovative as the Generation 8 internationally, especially in Mexico, a big market for Marcopolo. V&A Travels was the first customer to purchase a Generation 7 Paradiso 1350 bus more than eight years ago and is now renewing its fleet with a G8 with biosafety equipment," said José Luis Goes highlights, director of Marcopolo Mexico.

V&A Travels' Paradiso G8 1350 has VALEO CC 356 air conditioning with an integrated UVC (ultraviolet light disinfection) system, full LED lights, electric external rear-view mirrors and a restroom in the back with an Eco Flush and UVC system for greater safety. With a length of 15 meters and a Volvo B13R 6x2 chassis for greater comfort and convenience, it has 46 half-sleeper seats, with USB sockets and a cell phone holder, magazine and cup holders, complete dividing wall, curtains, electronic destination sign, overhead rack, set-up for an audio and video system, with DVD and monitor, overhead luggage rack and five monitors in the passenger area.

Marcopolo Mexico started its activities in 1999, manufacturing bus bodies and spare parts. The company is one of the market leaders and has a unit in the municipality of Garcia, in the state of Nuevo León. It also has a parts distribution center in Toluca, state of Mexico. All production is destined for the Mexican market, for the urban, road and tourism sectors. □

### 1990 37-Foot Bluebird Doctor's Office Conversion

5.9 12-valve Cummins engine, Allison industrial transmission, wheel chair lift in side, vinyl plank flooring, new electric refrigerator, 1 new domestic AC unit, new starter, 3 cylinder 8 KW Perkins diesel generator. Needs new awning. Husband was replacing lights with LEDs so that project must be completed. Pick up in Melrose, FL (near Gainesville). \$20,000 cash.

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# William A. (Bill) Luke

## Bus Industry Organizer, Publisher and Historian

by Larry Plachno

We were saddened to hear that bus industry icon and friend Bill Luke passed away on January 23 in Spokane, Washington, a city that had been his home since 1969. He was 97 years old and would have reached 98 at the end of February. Bill was a leader in the bus industry and was there when we needed him. In the years before webinars and cell phones, he got the bus industry organized around seminars and forums. When the bus industry needed a professional publication, he stepped in to provide that. In addition, he was an avid industry historian, a friend to many in the industry, authored several books and even wrote a chronicle of the industry.

While Bill was somewhat formal by nature, he quickly and easily made friends in the bus industry. Not only did he have bus friends all over the United States and Canada, but his bus industry contacts extended all over the world. Our two magazines had different areas of interest, but we worked together because both of us were bus people first and publishers second. We promoted each other's events, recommended the other publication to advertisers and often discussed the industry at bus events or on the phone. Bill had similar working relationships with others in the bus industry.

This biography and tribute to Bill was originally started for his 95th birthday but was slowed down because of the pandemic. In addition to material from our files, Loring Lawrence from the Bus History Association provided research, details and help while Bill offered information from his own files including some notes from his future autobiography. When Bill read and reviewed our original manuscript for this article, he provided several pages with comments and corrections. Hence, some of the wording here came directly from him.

There are several different kinds of people in the bus industry. Some are born into a bus family and become acquainted with buses at a young age as they help in the family business. It might be said that the industry chose them rather than they selecting the bus industry. For others, the bus industry may only be a job. They may work in the industry for several years but then move on to other things and other places. A third group are those who become interested in the bus industry and embrace it as a career. Bill Luke belongs to this third group.



This photo was taken on July 3, 2008 when Bill Luke visited the Fort Rouge Garage of Winnipeg Transit and was photographed next to their history display. Bill provided his own wooden hand-crafted model of a Brill trolley bus that was part of the display. The combination of Bill's travels to visit bus friends all over, his interest in bus history and his generosity make this an appropriate photo to start the Bill Luke story. ALEX REGIEC.

He became fascinated by the bus industry as a youngster and made it his life-long career. While Bill made numerous friends in the industry, he also should be known and

remembered as an industry pioneer in communication including meetings and publishing. Bill was the guy who stepped into this void and got early industry meetings

organized and then brought the industry together with a dedicated publication. His organizing efforts went a long way to improving our industry.

### Early Years on the Mesabi Range

William A. (Bill) Luke was born in Duluth, Minnesota on February 26, 1924. He was an only child but made friends easily. In about 1928, his family moved west to Virginia, Minnesota. In 1929 he started school in Virginia.

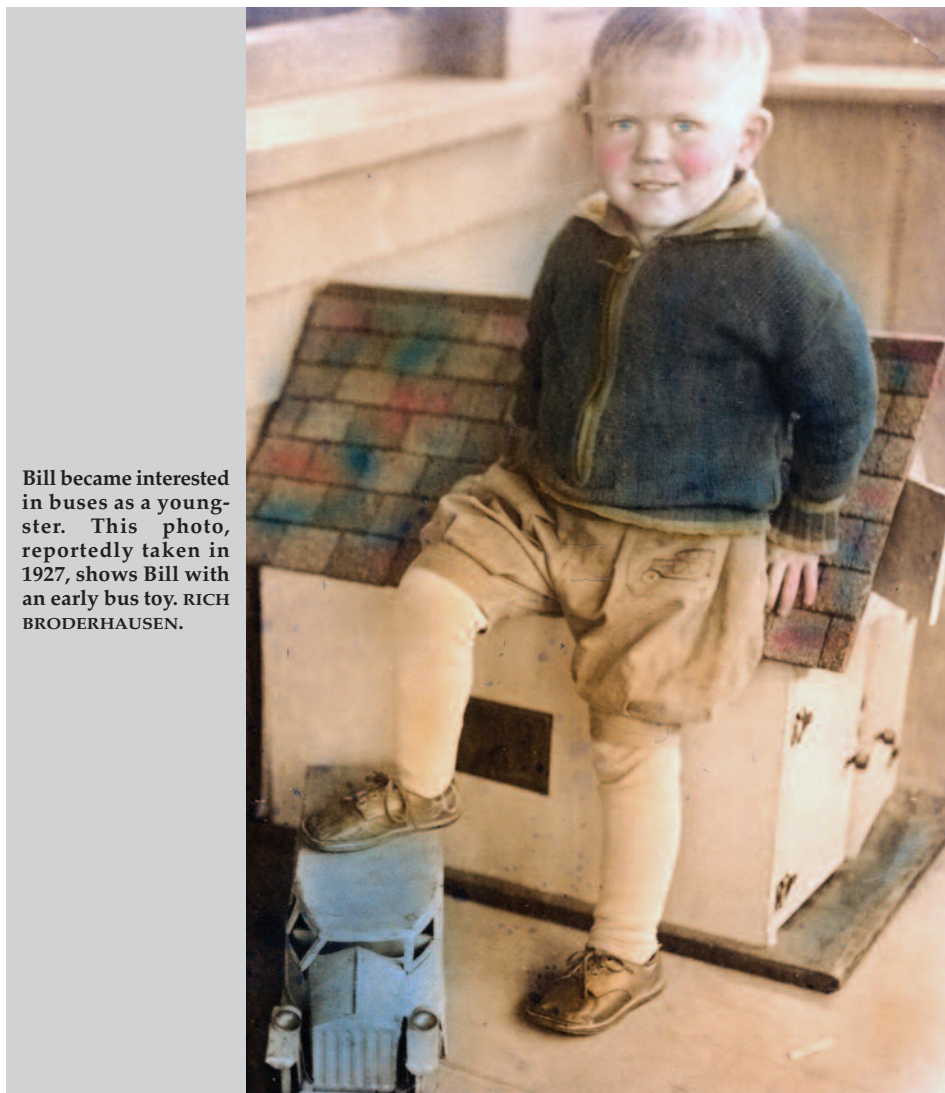
It is somewhat prophetic that Bill's childhood home in Virginia is only 23 miles east of where Greyhound was born in Hibbing, Minnesota in 1914. Today's Greyhound Museum is located along the original route from Hibbing to Alice, which was not much more than walking distance. This area is traditionally called the Mesabi Range and is well known for its iron ore and open pit mining. Bill mentioned that as he grew up, he would ride on the local bus company in Virginia, Lambert Motor Coach Co. They operated some Yellow Coach model 733 buses that Bill liked and later ran Ford Transits.

Bill was interested in the bus industry as a youngster. He says that he often dreamed and thought about working in the bus industry. He made arrangements with the ticket agents at the bus station in Virginia to give him month-old copies of *Russell's Guide* when they received the new one. This is the book that listed nationwide bus schedules. One of Bill's hobbies was carving model buses from wood and then painting and detailing them. His collection eventually included more than 100 buses.

### Education/Military

Following high school, Bill attended Virginia Junior College in Virginia briefly before

Bill often rode on and fondly mentioned the Yellow Coach 733 buses operated by Lambert Motor Coach Co. in his home town of Virginia, Minnesota. BUS HISTORY ASSOCIATION.



Bill became interested in buses as a youngster. This photo, reportedly taken in 1927, shows Bill with an early bus toy. RICH BRODERHAUSEN.

deciding to enlist in the U.S. Army in 1943. After training, he was assigned as a clerk in an amphibious engineering company. They were then sent overseas and spent several months in Wales for training and a few weeks in England before going into action.

On June 6, 1944, Bill and about 100 others from the amphibious engineering company became part of the Normandy landings and reached Omaha Beach on D-day afternoon. Bill related that "A company bulldozer also landed on D-Day. After a mine field was cleared, the bulldozer was used to build a road up the hill to level land. That road was bumper to bumper for three days with different army and support vehicles such as tanks, half tracks and cargo trucks. It was an important part of the success of the Normandy Beach Mission." To put this time frame into perspective, it might be noted that the Normandy Landings celebrated their 75th anniversary on June 6, 2019.

Upon his return from the military, Bill went back to Virginia Junior College and graduated in 1947. He then studied briefly at the crowded University of Minnesota in Minneapolis. Bill related that he had lost

three years of a career in the bus industry and decided that rather than pursuing a degree he would get started looking for a job in the industry. His advisor at the University of Minnesota, hearing of his interest in transportation, suggested that he instead study freight transportation. That was the wrong thing to tell Bill. He said that in the end, starting a career proved to be a good move, even without a degree.

### Jefferson Lines

In 1948, Bill came back from school with the intention of seeking a position in the bus industry. He sent out letters to four bus companies and was rewarded with a reply from Jefferson Lines in Minneapolis. At that time Jefferson ran a fleet of about 50 intercity coaches. The mainstay of the fleet was more than two dozen Aerocoaches although four new GM PD3751 "Silver-sides" had recently been delivered. In earlier years, Jefferson had purchased some conventional Whites that had been refurbished and served as the basic fleet earlier in the decade, and a few were still on the roster. Four of the new GM PD4101 model coaches were scheduled for delivery in 1949 to update the fleet.



One of Bill's early hobbies was carving model buses from blocks of wood and then painting and detailing them. He eventually had a collection of more than 100 of these. STAN HOLTER.

Bill started his career with Jefferson selling tickets at their Rochester Terminal. Jefferson was primarily a north-south carrier and Rochester, Minnesota was an important company terminal on its routes. One major route went through Rochester between Minneapolis and Cedar Rapids, Iowa. Another route linked Rochester to the Minneapolis-Kansas City route. A year earlier, Jefferson started a premium luxury service between Minneapolis, St. Paul and Rochester that used limousines and stopped at hotels, bus stations and railway terminals. Expectedly,

this service was geared to the Mayo Clinic, a special health care center known around the world.

Soon after starting with Jefferson, a position in the reclaim department opened at the company's headquarters in Minneapolis. He arrived there in time for the Greyhound strike of 1949. This shut down the Minneapolis Terminal which was also used by Jefferson Lines and Zephyr Lines. To continue operating, Jefferson Lines parked one of their older White conventional buses along the curb at the terminal. Bill was inside the bus handling ticket sales and providing information.

Bill's work in reclaim involved determining the Jefferson Lines portion of passenger and freight revenue. A monthly publication called *Russell's Guide* provided information on bus routes and schedules throughout the United States and Canada. Hence, ticket and commission agents were able to sell passenger bus tickets and route package express over several different bus



Bill served in the U.S. Army during World War II. This 1944 photo shows him in his army uniform. BUS HISTORY ASSOCIATION.

companies. The National Bus Traffic Association acted as a clearing house between the bus companies. It was the job of the reclaim department to figure out what portion of the ticket sale belonged to their company.

Now in Minneapolis, Bill spent some time at the Minneapolis Bus Terminal where he met a Greyhound travel planner by the name of Adelene Skinner. Bill mentioned that she not only liked being in the bus industry but also liked to travel. Adelene was born on June 6, 1928 in Staples, Minnesota, located northwest of Minneapolis and about halfway to Fargo. She graduated from Staples High School and then attended the University of Minnesota. Adelene started work with Northland Greyhound Lines in Minneapolis and then became a travel agent at the Greyhound Travel Bureau at the Minneapolis bus terminal.

Taken about 1950, this shows Bill with one of the new GM PD4101 coaches that was delivered to Jefferson Lines at this time. RICH BRODERHAUSEN.



The Greyhound strike in 1949 shut down their Minneapolis Terminal. Jefferson Lines and Zephyr Lines continued to operate by parking an older White bus at the curb. Bill worked inside the bus selling tickets and providing information. BUS HISTORY ASSOCIATION.





Bill was very active in riding buses and making friends all over. Here he is in Duluth in a typical and often-repeated pose adjacent to a bus in different locations over the years. The coach was signed for a trip to International Falls. RICH BRODERHAUSEN.

Adelene and Bill met in 1952 at the bus terminal. Following a short courtship, they were married on September 19, 1953 in the Minneapolis suburb of Columbia Heights. Bill and Adelene honeymooned in the Pacific Northwest where Adelene was impressed with the mountains. She was so impressed with the western scenery that she was determined to some day live in the West.

Here is another typical Bill Luke bus travel photo. Taken in what is now Thunder Bay (then Fort William and Port Arthur), Bill is standing adjacent to a Western Flyer coach operated by International Transit Lines and signed for St. Francis. Bill was good friends with the Hurtig family that owned the company that served Northwestern Ontario and also ran a route south to Duluth. ALEX REGIEC.



Here is a photo of a new Jefferson Lines PD3751 Silversides signed St. Paul-Mpls. The photo was taken by Bill Luke when he worked on schedules for Jefferson Lines. Bill used this particular photo on a Jefferson Lines timetable cover. BUS HISTORY ASSOCIATION.

According to Bill, one of the side benefits of working for Jefferson Lines was obtaining travel passes on various bus operations. He started with the expected pass from Jefferson Lines. As time went on and he got to know other people in the industry, he obtained passes from other carriers. Eventually, he had passes for more than 25 bus companies.

Bill relates that for most of his 21 years at Jefferson Lines, he wore several hats and often spent time on the road with a company car. For a while he visited commission agencies, mainly in Iowa, that sold tickets on Jefferson Lines bus routes. He mentions meeting and speaking with traveling salesmen in the hotel lobbies in the evening in classic small-town hotels. Bear in mind that there was no television at this time. The musical movie *The Music Man* reminded him of these days. At other times Bill would visit colleges and universities along the Jefferson routes to help plan extra buses during holidays and breaks.

Having been familiar with *Russell's Guide*, Bill got involved with bus schedules at Jefferson Lines. For a while he was responsible for getting revised route schedules to *Russell's Guide* for publication in their next issue. Bill was then responsible for submitting schedule changes to regulatory authorities.

Bill came to carry the title of Schedule Supervisor at Jefferson. He modernized the timetable folders by taking photos of the newest Jefferson Buses and printing them on the timetable covers. In addition, he arranged to have post cards and business cards with photos of Jefferson buses. When new timetable brochures were printed, Bill would take copies to railroad stations and hotels around the Twin Cities and replace any old timetables in their literature boxes. Bill also began working with other bus companies on schedules and became the chairman of the National Bus Schedule subcommittee.

In his later years at Jefferson, Bill got more involved with charter and tour sales, particularly to schools. At one point he and Adeline made a trip to the Black Hills to obtain information for planning trips. By the 1960s, Bill was given the title of Assistant Secretary and got involved in working on the new bookkeeping machine when he was not on the road or working on other projects.

### BHA and Maintenance Forums

During the mid-1960s when Bill was at Jefferson Lines, he was involved in different things that would become important to the bus industry.

Bill easily made friends both in and out of the bus industry. Hence, it was not surprising that he had several friends interested in bus industry history even if they were not employed in the industry. Bill was one of the founding members of the Bus History Association in 1963. This group has been very active in preserving and recording bus industry history and has a substantial membership in Canada.

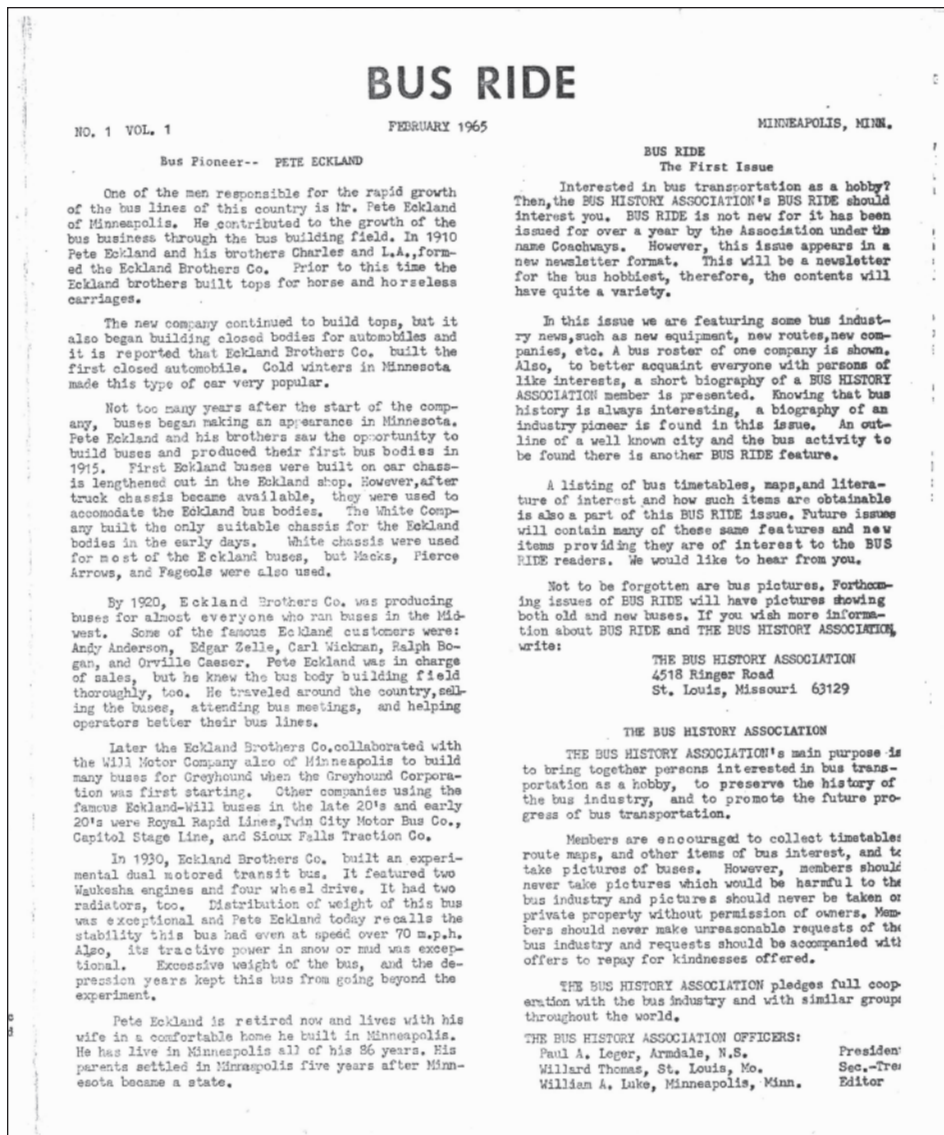
Soon after the founding of the Bus History Association by Paul Leger, Bill began producing a newsletter named *Bus Ride* in February of 1965. Initially a single sheet of paper folded in half, it appeared in alternate months and contained bus company rosters, short articles on various aspects of the industry and a biography of industry pioneers. Photos first appeared in the June, 1965 issue. In later years Bill would expand *Bus Ride* into a much-needed industry publication, and it would grow way beyond initial expectations.

Joe Foty, the superintendent of maintenance at Jefferson Lines, spent a substantial amount of time on the phone consulting with other bus maintenance people and industry suppliers. The bus maintenance people were effectively networking and exchanging answers on how to solve various bus questions and issues. When Bill Luke heard about this he came up with a solution and the well-regarded Bus Maintenance Forums were founded.

These maintenance forums were regional and easily available to area bus maintenance people. Regional maintenance people were welcomed and the meetings were immediately successful. Friendship among the attendees was emphasized.

We need to bear in mind that the UBOA/UMA Motorcoach Expo was still two decades in the future and BusCon was three decades away. Putting together a technical meeting for bus maintenance people was a pioneering effort that showed the bus industry that things like this were possible.

The first Bus Maintenance Forum was held at the Holiday Inn in Minneapolis in March of 1964. To say that it was a success



The first issue of Bill Luke's *Bus Ride* was produced in February of 1965. It was a single sheet of paper folded in half and was originally created for the Bus History Association. In later years Bill would turn *Bus Ride* into an industry magazine.

would be an understatement. This initial event was well received by those who attended. Industry suppliers were delighted at being able to meet so many bus maintenance people at one place and they wanted a longer event. As a result, the Bus Maintenance Forum was increased in length and was held annually in various Midwest cities.

Expansion first came in 1977 with the addition of a second annual event designated as the Western Bus Maintenance Forum. The first of these events was held in Emeryville, California. That same year saw the first of the Bus Garage Seminars with the first held in Southfield, Michigan. That event continued to be scheduled annually for 10 years with the last such event in Tampa in 1986.

Following years saw Bill Luke organize other types of seminars and meetings for the bus industry that had never been done previously. The first of the Safety Seminars

made its debut in 1981. Additional Bus Maintenance Forums were scheduled in various locations including Hawaii and Alaska. Bus industry people, industry suppliers and local convention staff asked for even more events.

The first of the Computer and Electronics seminars made its debut in West Springfield, Massachusetts in 1984 and included a trade show. That same year saw a Women's Bus Seminar, a Graphics Forum and a School Bus Maintenance Forum. From 1991 to 1996, a Bus Maintenance Forum was scheduled in conjunction with the annual UMA Expo.

Bill deserves a lot of credit for pioneering these meetings, forums and seminars for the bus industry. There were attempts to continue the shows after he and Adeline retired, but they never were as successful.

I would be remiss if I failed to mention Bill's interest in traveling, particularly bus

travel. It was not at all unusual for Bill to arrive at bus events by riding buses. He would ride buses not only around the United States but also in other countries. Over the years he got to meet bus people all over the world. Bill continued his involvement with bus people around the globe with a newsletter for the Buses International Association that he founded in 1981.

### Moving to Spokane

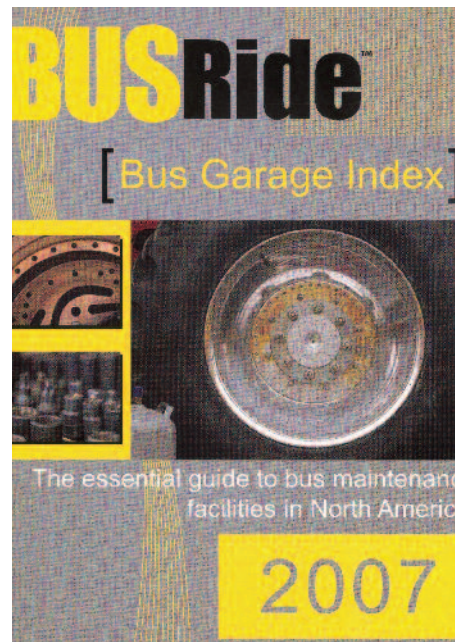
Bill spent 21 years with Jefferson Lines and in 1969 Empire Lines in Spokane offered him a job. Bill mentioned that "Minneapolis had become a large metropolitan city and life there had changed considerably. Having grown up in smaller Minnesota cities, the opportunity to move to Spokane was inviting. Also, after many trips to the West, the Empire Lines opportunity was welcomed, as well as the Western environment." It might be added that Adelene liked the western states and hence was pleased with this move.

Once at Empire Lines Bill still wore a number of hats. He continued to do road work, scheduling and tour planning at Empire Lines. However, the company found it challenging to handle the considerable bus transportation required by large events, such as the Boy Scout Jamboree in nearby Idaho and Expo '74 in Spokane. Bill also planned a successful Gray Line Spokane city tour as well as numerous other types of charter and tour arrangements.

While Bill continued to work for Empire Lines, Adelene worked full time for their business. She was named the corporate president and suggested that certain issues of *Bus Ride* feature articles about women. At



After Friendship Publications was founded, two additional publications were developed. The *Bus Industry Directory* was first published in 1972 and became an annual in 1984. The *Bus Garage Index* listed bus garages and bus service locations in the United States and Canada. NBT.



that time Adelene was responsible for much of the main editorial in the publication.

Bill remained with Empire Lines through the close of Expo '74. He then left to spend his time running his expanding forum and publishing business. Adelene and Bill established Friendship Publications, Inc., by then a profit-making venture that was acquired through the mutual arrangement they had with the Bus History Association. I would suggest that the selection of the name Friendship Publications by Bill and Adelene for their company reflects on their ongoing

efforts to increase friendship in the bus industry.

### Friendship Publications

Bill Vanderbilt partnered with Bill Luke and began working towards developing a publication to fill an obvious gap for the industry. The story behind this is that the original leading industry publication was *Street Railway Journal* that dated from the horsecar days before the first successful streetcar operation in Richmond in 1888. Back in 1885, James H. McGraw started his publishing career by selling subscriptions to *Street Railway Journal*. As street railways electrified, the name of the magazine was changed to *Electric Railway Journal* and it became one of the McGraw-Hill publications. In 1922, McGraw-Hill again changed its name to *Bus Transportation* to reflect the new directions of the industry.

Due to rationing and limitations, bus companies were kept very busy during World War II. These were difficult years because few new buses were built and used buses were rarely available. It was not until after the war, in 1948, that Greyhound was able to place an order for 2,000 buses to modernize its wartime fleet. However, people began buying cars in the postwar years and bus ridership declined.

*Bus Transportation* found itself in a changing industry in the 1950s. Transit operations had been moving from private to public ownership. In intercity coaches, GM's revolutionary PD4104 of 1953 decimated much of the competition. Aerocoach quit in 1952, ACF-Brill quit a year later and Fitzjohn, Beck and Mack were soon no longer building buses. For the most part, only GM and Flx-

Bill and Adelene met at the Minneapolis Bus Terminal when he worked for Jefferson Lines and she was a Greyhound travel planner. Both liked working in the bus industry and enjoyed traveling. They had celebrated their 63rd anniversary when Adelene passed away in 2016. RICH BRODERHAUSEN.







One of the most noteworthy books Bill wrote was the *Bus Industry Chronicle*. It filled a gap by providing a much-needed overview of the history of the bus industry. NBT.

ible remained by the end of the decade. Hence, *Bus Transportation* quit publication with their December, 1956 issue because of the declining industry.

A decade later, a revival was underway. By the mid-1960s, MCI coaches began arriving in the United States and the first Prevosts showed up in the U.S. in 1968. The bus industry was looking for an industry publication to deal with all of this, and hence Bill Luke stepped up to the task and expanded *Bus Ride* to become an industry magazine. Starting with the August, 1966 issue, a larger format was introduced and printing was done by Russell's Guides of Cedar Rapids, Iowa. The August, 1967 issue was the first

*Bus Ride* reached its 25th anniversary in 1990. MCI highlighted this special occasion by presenting Bill Luke with an MCI 102A3 model appropriately lettered for the event. STAN HOLTER.



with the brilliant red cover that would be a trademark of *Bus Ride* for many years. It was also the last issue under the Bus History Association's name. Friendship Publications, Inc. was created to handle both the expanded publishing operation as well as the Bus Maintenance and related forums. Typewriting gave way to typesetting in 1971 and color printing first appeared in the August, 1973 issue. By 1980, *Bus Ride* had grown to a thick industry trade magazine.

Adelene and Bill spent much of their spare time traveling. A favorite activity was camping including trips with the Girl Scout Troop that Adelene led. Bill and Adelene visited 20 national parks in the United States and 10 in Canada. In addition, they visited all the provinces of Canada, nearly all of the states in the U.S. and nearly 50 countries around the world. On their 25th wedding anniversary, they went on a special trip to Africa and Brazil.

While *Bus Ride* served the U.S. and Canadian market, Bill kept up with what was going on in Europe. His foresight was obvious when the European coaches began moving into the U.S. market in 1984. After European buses were made available on the

American market, Bill and I found ourselves more involved with the European manufacturers. I am particularly thankful that at one of these early events in Belgium, Bill introduced me to the European rail network by taking me along on a trip from Antwerp to Roosendaal and Breda.

After *Bus Ride* was established, Friendship Publications added two directories to its publication list that were well received by the industry. The *Bus Industry Directory*, first published in 1972 and becoming annual in 1984, listed bus operators and industry suppliers in the United States and Canada. It became a handbook of information for many in the industry. Another publication was the *Bus Garage Index*. This listed bus garages in the United States and Canada. It was particularly helpful for those seeking service or repairs when away from their home garage.

Bill is best known for his years as editor and publisher of *Bus Ride* while continuing to run the Bus Maintenance and related forums. He was obviously a pioneer in technical gatherings for the bus industry as well as providing an industry publication that was both needed and well received. As more

Roger Vollmer, former president of Navi-Hopi Tours, poses with Bill in front of Tom Evans' PD4104. The date was February 26, 2014 and marked a 90th birthday party for Bill. TOM EVANS.



Several people converged on Spokane to help Bill celebrate his 90th birthday. The cake had an image of a Scenicruiser and was lettered "90th Congratulations Bill Luke." TOM EVANS.



than one person has noted, Bill was an early leader in these areas and in providing the bus industry what it needed and wanted.

Over the years Bill received numerous awards and presentations. He was appointed as one of the commissioners for the new city-owned Spokane Transit Authority in 1978 and served until a regional authority was formed. Bill was named to the American Public Transit Association Hall of Fame in 1998. One of his more interesting honors was from his home town by being inducted into the city's Hall of Fame.

### Retirement . . . But Not Really

After 32 years working with the Bus Maintenance Forums and about 24 years at the helm of *Bus Ride*, Bill and Adelene made the decision to retire. Friendship Publications was sold to The Producers in Phoenix in the mid-1990s while Bill and Adelene decided to retire and remain in Spokane.

As expected with Bill, this turned out to be less of a retirement than a change of direction. Bill continued his involvement with bus people both locally and around the globe. Bill could be found at many industry events and meetings. He also continued to remain active in planning and conducting bus industry seminars.

Bill now had time to get involved with various book projects. Particularly noteworthy was his *Bus Industry Chronicle*. Published in 2000, it gave a review of the bus industry in the United States and Canada in the 20th century in both text and photos. The bus industry has never been well documented and this book by Bill Luke filled a very obvious historical gap. In addition, Bill researched and authored a number of spe-

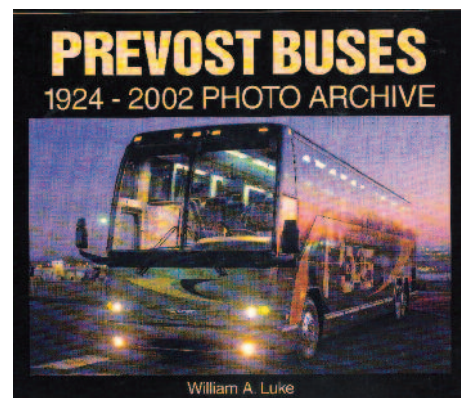


Bill never really retired. When he no longer was involved with the magazine, he turned his attention to creating a series of photo books that was published by Iconografix. Subjects included *Yellow Coach Buses*, *Fageol & Twin Coach Buses*, *Flxible Intercity Buses*, *Buses of ACF*, *Prevost Buses*, *Trolley Buses* and several others. NBT.

cialized photo books with publisher Iconografix. Topics included *Yellow Coach Buses*, *Fageol & Twin Coach Buses*, *Flxible Intercity Buses*, *Buses of ACF*, *Prevost Buses*, *Trolley Buses* and several others.

Bill wisely made arrangements to secure a permanent home for his extensive collection of bus industry items including photographs, printed items and other bus collectables. Recipients of the material included the Henry Ford Museum in Dearborn, Michigan and the Northwestern University Transportation Library in Evanston, Illinois near Chicago. These materials will now be available for future inspection and research.

Adelene passed away in 2016 after she and Bill had celebrated their 63rd anniversary. While they had no children, their household included four beagles, a corgi and a cat.



Bill apparently never did retire. When he turned 95 on February 26, 2019, I phoned and wished him a happy birthday. Bill was talking about gathering up some bus color slides for yet another new project. He also helped us develop this article by providing information and notes he had available. Bill then set about completing the autobiography he had talked about and had been working on for years. My understanding is that it will be completed and become available in early 2022. His autobiography will most likely be a good read for bus people because Bill made many trips by bus and to buses that I am sure are interesting if not fascinating.

Bill Luke will be fondly remembered both for helping the industry and as a friend. We bus people owe him a round of thanks for all that he has done for the bus industry. □



Many of us are looking forward to Bill's autobiography because of his extensive bus travels over the years. Typical of his travels in later years to meet bus friends is this photo taken in Winnipeg in front of Beaver Bus Lines #97. On the left is John D. Fehr, president of Beaver Bus Lines, one of Bill's many friends. ALEX REGIEC.



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#ByYourSide



# ABA Marketplace 2022 Comes Roaring Back

Article and photos courtesy of Mark Szyperki

In Texas, they say “Go Big or Go Home.” The American Bus Association drove that point home for the 2022 ABA Marketplace. Held at Gaylord Texan in Grapevine, Texas in January, it was chock full of meetings, events, exhibits and the annual business floor, bringing tour providers and venues together. Even with the concern for Covid variations, precautions were taken, and many enjoyed all that a successful Marketplace has become to be known in the industry.

Before registering, attendees were required to show proof of up-to-date vaccinations, or negative testing for Covid. Attendees were invited to upload their vaccination cards online ahead of the process, making it very easy to meet the requirements. Attendees were notified ahead of arrival that their documents had been received, making it easy for meeting the registration requirements. There were also plenty of hand sanitizer units standing all over the entire conference center. In fact, many of the stations showed they were sponsored by locations such as Visit Williamsburg, Jamestown and Yorktown.

Peter Pantuso, president and CEO, stated, “We had registered over 1,850 people, with over 1,800 showing up. We couldn’t be more pleased. We have the entire industry here. We have bus manufacturers, we have suppliers to the industry, we have consultants, and on the travel and tour side, we have our destinations, we’ve got our hotels and attractions. The whole family of group travel and motorcoach industry has gathered here together.”

The event started ahead of time with multiple “Pre-Marketplace” events taking place. There were meetings and events with Trailways Transportation System, to the National Bus Traffic Association (NBTA) meeting as well as Women in Buses, Hispanic Motorcoach Council Meeting, African American Motorcoach Council Meeting, School Bus Council Meeting, Bus Maintenance and Repair Council and the Bus Industry Safety Council (BISC). These meetings allowed members of those organizations to have their meetings ahead of time, but only be required to make travel arrangements one time. All these pre-Marketplace meetings



The American Bus Association Marketplace in Grapevine, Texas in January represented the first major in-person meeting of its type since the start of the pandemic. As usual, it included people from tourism as well as buses on display. This overview shows some of the tourism booths while buses can be seen in the upper right.

were well attended and covered a lot of topics in multiple areas. For example, at the National Bus Traffic Association, members received a report on the status of the industry coming out of the pandemic from the Chaddick Institute For Metropolitan Development, which is part of DePaul University in Chicago, Illinois.

Also, representatives from Greyhound reported on the recent purchase of Greyhound by the Flixbus organization from Germany. In addition, various companies would have their “User Group Meetings” such as Betterez, a ticketing solution for motorcoach companies. Mike Van Horn, senior vice president of Betterez said, “For Betterez, our main industry organization is American Bus Association. This is our fourth or fifth year having a user group

meeting. The main purpose is to get customers and potential customers together and talk about how they can better utilize Betterez and use technology in any number of ways, related to sales, passengers, capacity management and reconciliation. We do plan to continue this and are always open from our customers for suggestions on how to have a better user group. We’ve really been pleased that we could have it this year coming out of the Pandemic and want to thank the American Bus Association as well, for their continued support.”

Vicki Bowman, president of VB Group Marketing and Event Resources, was representing the California Bus Association in a shared booth with Trailways Transportation System. She noted, “Being at ABA is a much-needed reminder that we



ABA President and CEO Peter Pantuso (left) greets Mark Szyperki from On Your Mark Transportation at the entrance of the Marketplace business floor. Pantuso said that attendance for the event was pleasing.



Vicki Bowman from VB Group was representing the California Bus Association in a shared booth with Trailways. The Trailways group had their own event locally immediately prior to the ABA Marketplace.

are all facing the challenge of running a business while navigating the effects of a global pandemic. ABA is more than a business association, it's a family. I see it in the smiling eyes of my friends and colleagues and the many warm embraces. This show for me has been a happy reminder of why I love this industry."

As with other ABA Marketplaces, this one was filled with multiple educational opportunities, as well. Various presenters provided information to attendees on all types of topics important to the motorcoach and tour industries. There were plenty of topics to choose from, including "The Dangers of Speeding and How to Prevent it," "Updates on Drug and Alcohol Testing," "Preparing to get New Hires on the Road and Up to Speed," and "Critical Thinking Skills," as some examples of the various programs presented. Attendees walked away with real day-to-day solutions to issues in all areas of operations, marketing, maintenance, human resources and finance.

There were multiple motorcoach manufacturers and their representatives on the floor, including Van Hool, Prevost, Tamsa and MCI, to name a few. Pat Ziska, vice president, Private Sector Sales & Marketing at MCI, stated, "It's energizing. It's really nice to be here with people, face-to-face and hearing them talk about their business and their expectations on where they think the market is going to go. Lots of incredibly positive feedback and people understanding more on how to cope with difficult situations and how to adapt their business and operate smarter and leaner. It's wonderful to be back and we are enjoying seeing everyone face-to-face and looking forward to doing more of that." MCI displayed a 2022 J4500 coach on the floor. The engine was a Cummins X12 11.8 Liter, 410 hp with an Allison B500 automatic transmission that has a 3.54 real axle ratio to give it optimal fuel economy.

ABC Companies also had a Van Hool on display. Prevost brought a 2022 H3-45 that included their eMirrors, surround camera

system and perimeter lighting. Interesting to see a motorcoach without the mirrors on the outside.

Ethan Sprengeler, senior account executive of the Midwest for Tamsa explained, "It's a great show and good to be back in person. Everyone we have spoken with has said the same, that it feels more like it is getting back to normal and in the swing of things. We've seen a lot of good customers, so it's been a good show." Tamsa brought a coach to put on display, as well. Their bus on display was their model TS 30, the shorter single real axle vehicle.

Daimler Coaches of North America, LLC had the largest exhibit of coaches on display with a full large screen in the back of the booth, while introducing two of their coaches that will be rolling out in the United States this spring. The Mercedes Benz branded coaches had the ADA lift positioned over the dual wheels in the back, aiding for those in mobility devices, but not taking up any of the baggage storage areas

This photo shows some of the crowd gathered around the MCI booth. On display in the background was a 2022 MCI J4500 coach equipped with a Cummins engine, an Allison transmission and an economical axle ratio.



ABC Companies had a Van Hool coach on display. In addition to two diesel models in different lengths, ABC is now offering their CX45e model that comes with battery-electric power and offers zero emissions on the road.





The people from Tamsa displayed their 30-foot TS 30 coach. It is the shortest coach on the American market with big coach features but a shorter length to accommodate smaller coaches while providing operating economy.



Prevost had a 2022 H3-45 model on display. It was equipped with their e-mirror surround camera system instead of conventional rear-view mirrors. The H3-45 model has been very popular with quality charters and tours.

underneath the coaches, while keeping the lift near the back of the coach.

The business floor was filled with both tour operators as well as venues, including hotels, cities, events and many attractions. Mandy Morgan, sales and marketing director for the Portland Spirit, a cruise company in Portland, Oregon experienced her first ABA Marketplace. She really enjoyed many of the special things like the "Best of Broadway" luncheon that is always a regular at ABA Marketplace. "It's been a wonderful experience," said Morgan. "Even though we are still going through the pandemic and attendance is reduced, the people who are here are really engaged, and they are all very welcoming and really excited to be back in person."

The show floor was filled with multiple booths with various locations for tours to consider adding to their itineraries. Of course, another fun feature of ABA Marketplace was for the food, drink or other fun information provided at the booths. For example, Iowa featured the "Field of Dreams" movie location that has turned into its own destination. Iowa even had baseball players in uniform with autographed pictures they were handing out. Cities from all over the United States were represented, including, but not limited to Nashville, Tennessee; Cincinnati, Ohio; Greenville, South Carolina and Mackinaw City, Michigan, as examples. However, not only were cities on display, but entire states had booths as well, including Texas, Michigan, Wisconsin, Oklahoma, Colorado, Mississippi and Iowa as examples. Vendors were well represented such as SubOut, BusGraphex, Group Travel Odyssey, Cambria Hotels and Amaya-Astron Seating as some of the booths.

Speaking of new attendees, Eureka Battle, owner of Taker's Transportation in Huntsville attended her first ABA Marketplace this year, as well. "This has been an

amazing experience. For an operator, like myself, that has been able to take full advantage of all the training and all of the education, meeting new people and seeing some faces that we have seen before, this has just been an awesome opportunity. I can't wait to get back to my office and implement some of the things that I've learned."

Of course, what would an ABA Marketplace be without the fun evening events, too. This year the entire conference was transferred over to the Globe Life Baseball Field in Arlington, Texas. This being the home of the Texas Rangers Baseball team, all attendees were able to enjoy an evening of food, drink and lots of baseball fun.

There were multiple activities for attendees, including music, pitching contests and photo booths. However, the fun was not just limited to evenings. Once again, Broadway.com sponsored an attendee favorite luncheon with various Broadway plays represented.

Due to Broadway just reopening and the lack of actors being able to make the trip to Texas, some of the shows were represented by video presentations instead of in person performances, or by multiple performances being presented live by a couple of various actors in multiple roles. However, this year, Broadway.com also had their own version of "America's Got Talent" where videos were sent in from some of the attendees

One of the newest models on the American market comes from Daimler and effectively replaces the Setra. This coach comes with a wheelchair lift positioned above the wheels in the back to avoid taking space in the luggage compartments. The coach is branded with the Mercedes-Benz three-pointed star which may help sell charters.



ahead of time, and two were selected to perform live at the luncheon. Both attendees chosen to showcase their talents were showstoppers in their own rights.

This year's event was held at the Gaylord Texan Resort and Convention Center in Grapevine, Texas. As with all the Gaylord properties, this property is expansive. The

Gaylord Texan Resort has 1,814 rooms including 152 suites. There are more than over 490,000 square feet of flexible pre-function, meeting and exhibit space. The resort also has a sprawling 10-acre pool complex that includes a 6,000-square-foot family lagoon with a 27-foot-tall waterslide, a 600-foot lazy river with walk-in beach, two horseshoe-shaped hot pools, private cabanas and an event lawn. All of this is located on 125 acres at the southern tip of Lake Grapevine and is situated about six minutes from DFW Airport. This makes for a great location for attendees to enjoy not only the meetings and events, but also a great place to just meet with friends in any of the many restaurants, coffee shops or the huge atrium with multiple water features in it, all under glass.

Sandi Marquis, graphics sales manager for Budget Truck and Auto, wrapped up the general feeling by all who attended. She said, "It's been really good. We have met with quite a few customers. There were a lot more than we thought there would be. We have talked with some new people, also. Basically, we reconnected with some of our vendor friends, some of our OEM friends, and it was just great to be back. To see the enthusiasm with what 2022 hopefully will bring, I am hoping it will be a good year. The events were, as usual, very fun, very well attended, and it amounted to a very good show." □

Several states had booths to encourage and show off what they could provide for tours. Iowa's booth highlighted the *Field of Dreams* movie location including baseball players in uniform. *Field of Dreams* was originally a movie site that grew into a popular tourist location.



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# The Importance of Marketing



by Dave Millhouser

Running a bus company requires numerous talents including management, maintenance, human resources and bookkeeping. However, one of the most important factors in being successful is marketing. Companies that do the best typically have inside or outside people with experience or ability in marketing and sales. MCI.

“Owning and operating motorcoaches is tough enough, without the additional marketing and sales,” paraphrases one long time bus operator’s opinion. He relies heavily on work from other companies and some of the newer Internet-based sources.

“Anyone between you and your customer is a ‘broker’” says another highly regarded industry veteran queried for this piece. His point, based on experience, is that in addition to opportunity, depending on outside marketing comes with some serious concerns.

These two contrasting views, each voiced by highly accomplished executives, illustrate a dilemma faced by modern operators, as technology and the pace of business advance.

During a period when the motorcoach industry seems to be running in place, many companies are turning to an increasing number and variety of Internet services that promise increased business. This comes from more efficiently booking traditional consumers, but also by creating incremental business using digital technology.

Historically, bus operators worked together during busy times. A company might overbook, and then “farm” the excess work to local operators who had spare equipment. The operator that originated the charter would keep a percentage for their efforts. This traditional system has served the industry and the public well. Customers could find coaches, and operators utilized their equipment more efficiently.

The only hiccups came if companies did not pay each other promptly, or provided inferior service on work they picked up. In a tight knit industry, word spread quickly enough that bad actors often were weeded out before they did significant damage.

Some operators thrived on overbooking, consistently accepting more work than they could service with their own coaches, and building a network of operators willing to accept what amounted to “pre-packaged” business. This is true for both the charter and line haul segments of the industry.

Scheduled service companies traditionally do this on holidays and other times of peak demand. Charter operators rely on it for major events. Frequently a major player

in a market would contract to provide far more transportation than their fleet could handle, and then book and coordinate other companies. If the event was large (like the Olympics) they would hire equipment and drivers from distant cities.

These type of arrangements often worked well, sometimes did poorly and occasionally failed in spectacular fashion. Failure took the form of either poor service or operators not getting paid. Also in the mix were tour companies who owned no equipment. They would put together itineraries, sell seats retail and then charter buses to handle the transportation.

One steroidal form of failure happened on occasions where a bus line, tour company (or later on, Web site broker) negotiated a low price for work, then withheld payment. When the operator asked for their money, they were told they could be paid now at a further discounted rate, or wait weeks or months for full payment. This occurred despite the fact that the consumer had paid for the transportation long before. Examples linger in the industry’s institutional memory, making some operators cynical when “brokers” are mentioned.



With the dawn of the digital age it became simpler to offer pure brokerage services and maintain a visible presence nationwide, while owning few, if any, coaches. A group leader could find a Web site, click on any city and shop for charter transportation, without having any direct connection to the actual operator until the bus showed up.

Often the customer had no idea that they were not dealing directly with a coach com-

pany. One gentleman referred to his brokerage site as a "value added reseller" offering customers one-stop-shopping for charters, and operators pre-packaged work they might otherwise not have gotten, or even known about.

The perils of brokered work, for both customer and bus company were virtually the same as when work was "farmed" from

other operators, but compounded by the anonymity of the process.

Tour operators fall into a middle ground. They add value in ways that simple Web sites do not. They sell retail, create itineraries and often make deposits on rooms and event tickets. They have a relationship with their customers and real skin in the game. Conversely, in competitively packaging tours one incentive is to cut transportation costs. Many negotiate price aggressively. Some reward quality; others do not care.

The fact that they have capital tied up is a two-edged sword for their coach suppliers. Tour operators are a buffer with the passengers and do generate business, but if they sell too few seats on a tour, or are generally under-capitalized, they are tempted to ask bus companies to pay for the tour broker's sins. It is important to remember, they work for their customers, not the coach operator.

In researching this article, I attempted to contact nine Web sites offering brokered bus transportation, and only three, Rally, Ground Charters and Shofur (Rallybus.net, Groundcharters.com and Shofur.com), got back with anything beyond an automated response. It is worth noting that these three each have expended some effort to build relationships with coach operators.

Recognizing the genre's checkered history, the general manager of Ground Charters pointed out that they do work for the customer, but consider coach operators a valued resource and are always transparent regarding who is actually operating the buses. "We're good brokers," she said, indicating that she understood the industry's fear of "bad" ones.

In recent years new technology has ramped up the Internet's ability to book, and even create, business. Crowdsourcing software allows certain sites to assemble groups of individuals interested in attending the same event or create commuter routes by connecting people who make similar daily treks to work. Some have characterized it as the motorcoach version of Uber. That is not a precise comparison, but in the right ballpark. In many cases customers are folks who were not previously using, or even considering, buses, so this incremental business.

Local transit operators have, for years, offered on-demand service where practical, and so in some ways crowdsourcing is evolution as much as revolution. As these systems are refined, and new ones developed, operators who have idle equipment or do not have an affinity for marketing, have an incentive to work with them.

When deciding if, and how much, to get involved with these new services, there are a number of considerations. The traditional litany of caveats remains relevant. Are they

Having a Web site for your company with information on your routes, schedules, charters and tour offerings is expected today. However, effective marketing goes well beyond the Internet and can include several different channels to reach potential customers. The mix of what you use can vary depending on what you are selling and who you are trying to reach. TAMMY DUGGAN-HERD.



Companies that are successful will meet with customers and potential customers to let them know what you can offer in the way of charter equipment or tours. Many bus companies will show off their newest buses or those with special interiors so customers know what you have available. You can also meet with groups to talk about the tours you are running. MCI.



going to pay a reasonable price (or is the "broker" going to treat transportation as a commodity and contract the lowest bidder without regard to quality)? Mark Twain once said, "History does not repeat itself, but it sometimes rhymes."

Are they going to pay in advance, or at the time of pickup? Why not? They already have the customer's money. It is worth noting that at least one large crowdsourcing site has, so far, consistently paid operators in advance.

There are instances where customers thought they were booking luxury coaches with amenities, and did not get them because the broker did not either order, pay for or guarantee them. On occasion the customer finds it difficult to find anyone to talk to, let alone get relief.

In some ways the process is like buying a house, but in reverse. In this case the broker is working for the customer. There is nothing wrong with that, but everyone involved should be aware it is the case. At least one crowdsourcing Web site (Rally.net) has been represented at a number of industry meetings, building relationships with carriers, making the effort to address their concerns and needs.

There are a few other things to consider. If a bus line, site or broker proves to be reliable, you still have to determine how much of your fate you are willing to put in their hands. Are you willing to abandon marketing entirely and allow an outside entity to book all your work (and thus control your destiny)?



One of the best ways to reach local charter, tour and scheduled route customers is by conventional mail. Letters are more likely to be opened and looked at than e-mail blasts. You can also include your tour program, photos of your charter buses or your new route schedule in a mailing. F. MUHAMMAD.

Bear in mind that tour operators and brokers have come and gone, and may evolve in either direction, so it is important to monitor the relationship. It can be instructive to look up reviews on the Internet.

One potential pitfall of crowdsourced charters is that, though passengers are all going to the same event, you may not be transporting a true "affinity group." There is no group leader to smooth the way. All football fans are not the same. Alterna-

tively, working with these sites offers the opportunity to turn a small charter into a larger one. A small group of people wanting to travel to an event has the chance to attract additional participants, generating more business.

A second alternative is to build relationships with your clientele, pursuing business on your own and use the Web services only to fill slow spots. Clearly, this method gives more control, but you incur the expenses associated with marketing and sales. At least there is no one between you and your customers. If you have drivers who are popular and frequently requested, that is a consideration.

One industry observer pointed out a variation of this strategy. Some operators consciously avoid brokered work. They feel that, with the exception of crowdsourcing, it often just moves existing business from one carrier to another, in a race to the bottom price. These companies cede that work to rivals, then chase value driven clientele, allowing competitors to wallow in low margins.

A brokered charter generally does not afford the coach operator the opportunity to win the customer permanently via superior service, because the client's communication has been with the broker.

A third variation is to recognize that nothing prevents a coach line from developing or buying software that does regional crowdsourcing. Find or create your own incremental business. Virtually every scheduled line operator is doing online booking, with the efficiency that comes with that process.

In developing a mix of channels to reach out to potential customers, it is wise to consider local options as well as your Web site. Both local newspapers and the yellow pages can be used to sell charters and your tour program. You may also be able to run news releases in your local newspapers or get some publicity in an article covering your new buses. STOCK SNAP.



Consider Uber. There was nothing to stop traditional taxi operators from doing the same sort of thing as Uber. Versions of the technology that makes Uber consumer friendly could, and probably should, have been developed by cab companies years ago. They chose not to because they were in a protected market and saw no need. They are currently fighting a holding action just to survive. Paraphrasing Pogo: "They have met the enemy, and it is them."

Marketing has not been a traditional strength of the motorcoach industry. In order to do well in the current environment, more energy and thought needs to be placed into that phase of the business. At some point Internet sales and marketing will impact each operator, either directly, or competitively. If you do not control it, it will control you.

One size does not fit all, and each operator will decide for themselves where they fit along a "marketing continuum" that extends from complete digital dependence to total self reliance, (depending on customer relationships to bring enough business to thrive).

Bear in mind that along with game changing innovation, a lot of ideas have come and gone. You may not be able to see the future or pick a winner every time, but

will want to carefully monitor the things you try.

Each company should know its strengths and weaknesses, and make con-

sidered choices about what percentage of their sales and marketing they outsource based on their own skills and resources and vision. □

Personal contact with your charter, tour and route customers will keep them loyal and returning to ride on your coaches. Let them know what you are doing and where you are going. If you take one group to Las Vegas, as shown here, other groups may also become interested. DAIMLER/SETRA.



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# From the Editor's Desk



## To Print, or Not to Print, That is the Question

A nod of the head to William Shakespeare and *Hamlet* for my modified title for this column. What brings up this question is that we continue to receive inquiries on when NATIONAL BUS TRADER will again be available in a print edition. Unfortunately, it is not a simple question and not as easy to answer as you might think. Hence, in trying to respond to our readers (and others) in some way, I will cover a few of the various factors involved for those who are interested.

While it is obviously simplistic, we could say that the basic reason that NATIONAL BUS TRADER switched to digital in January of 2021 was because our readers (and most of the industry) substantially reduced the number of buses they were buying because of the pandemic. The price of the subscriptions alone did not cover printing costs. Essentially, the printing costs were covered by our advertisers. When bus operators substantially cut back on buying buses, the bus industry suppliers cut back on their marketing budgets.

An easy solution would be for each of our readers to go out and buy at least five buses this year. That most likely would do the trick to get the industry suppliers moving again. However, there is more involved and the situation can get complex because of other factors. Give me a few minutes and I will try to cover some of this.

### Pros and Cons

A good place to start is by mentioning that print and digital each have different merits and different people may have different reasons for preferring one over the other. A good example is that you can read a printed magazine without a computer or other electronic device. In fact, you can even read a printed magazine without electricity using daylight by day and a flashlight by night. Moreover, a printed magazine is very mobile. You can read it while riding on a bus or waiting your turn at the barber shop. Most of the negatives regarding print is that it does not have the features that digital has.

Admittedly, we were a little slow moving to digital with NATIONAL BUS TRADER. Our sister publication, BUS TOURS MAGAZINE began offering a digital version back in 2003. However now that NATIONAL BUS TRADER has gone digital, we are seeing several advantages to digital.

One of the most obvious advantages of digital is its speed of distribution. Once the pages are complete, it takes about two weeks to get an issue printed, mailed and in the hands of readers. With digital, this can take less than two days. This speed is also evident in the fact that we can e-mail PDF copies or links to digital pages almost instantly instead of waiting get printed copies through the mail. This was evident with the February issue when we received numerous comments about the John Madden article and were able to reply immediately with PDF copies and links.

NATIONAL BUS TRADER always had a measureable foreign readership. Bus people in other countries are interested in what is going on in the United States and Canada in regard to buses. The digital edition has made this more practical and workable. Now, readers all around the globe have access to NATIONAL BUS TRADER in days instead of weeks. Domestic readers like the fact that they can access NATIONAL BUS TRADER from their office, from their home and even while traveling.

Advertisers like the digital issues because of improved marketing with hyperlinks. With the print edition, it took many days to process reader service cards from interested buyers. In contrast, the digital edition offers hyperlinks that encourage interested buyers to click on a link and go to an advertiser's Web site immediately to obtain information or place an order. There is also an advantage to advertisers in being able to link back into magazine pages if they want to show something to their customers.

We also noted several other advantages to the digital edition. One of the most obvious is that with the print edition, we were limited in putting the issues together

because of the need to match the number of pages to press and paper sizes. Hence, most issues ran in multiples of eight pages. With digital there is no such limitation and we can add more pages randomly. Color on pages is less of a problem with digital although NATIONAL BUS TRADER was all color before going digital.

Archiving the issues is much easier with digital than it ever was with printed copies. Although, we had essentially gone digital with archiving articles and issues for many years. I have lost track of how many times a researcher asked for an old article and we were able to send it digitally within hours.

What might be interesting is the fact that internal production for both print and digital is the same until the point where we make PDF files to send to our printer or for our Web site. Actually, our sister publication BUS TOURS MAGAZINE offers both a digital and print edition that are effectively the same.

### Preferences

Since going digital, we have noticed some interesting preferences among readers. Many of the readers who want a print edition are not bus owners or operators. On the other hand, since going digital we have continued to get new readers from among commercial bus people, both coach and transit. This is positive for our advertisers.

We also noted preferences among the advertisers. This is not necessarily something new since this same situation had been obvious with BUS TOURS MAGAZINE for years. There are advertisers who show a marked preference for online and digital advertising. Some of them feel that printing is out of date and old-fashioned while online and digital is modern and current. As a result, the digital has an advantage in this area. However, I have seen reports that much of our younger generations are returning to printed material and reading.

### Print Options

Print options do exist and we have been looking for more. The most obvious is that when you click on the new digital edition of NATIONAL BUS TRADER on the

## From the Editor's Desk

www.busmag.com Web site, you will see a down pointing arrow in the upper left corner. If you click on it, a PDF file of that issue will download to your computer. Once you have that PDF file, you can print all or any of the pages on your home or office computer printer. You can also archive it for future reference.

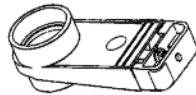
I do this kind of thing all of the time. When I find interesting news or research items on the Internet, I frequently print them so I can leisurely read them while eating lunch or when I am not in front of a computer. The advantage of this is that you can determine those pages you want to print and those that you do not. When doing research on new articles, it is often helpful for us to print copies of similar articles that are stored on the computer.

As another option, we have been looking for a print-on-demand company to print copies of issues for people who want them. So far we have spoken with a few places and are looking for other options. Quotes from different places range from \$10 to \$15 per issue. If you know of a company that can do this, please pass that

information along to us and we can try to work with them.

We continue to look for ways to offer a print edition again. Our ability to do this will depend a great deal on the bus industry improving to where it once was. As mentioned earlier, the most important factor will be our readers and other industry people buying more buses and equipment so that the bus industry suppliers will put more money in their marketing budgets. □

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# The Curious Coachowner

## Number 282 of a Series

“The Curious Coachowner” is a question and answer column that provides simple answers to simple questions that are too short to warrant a full article or inclusion in one of our regular columns. We will accept reasonably simple technical or historical questions on commercial coaches or converted coach shells by letter, fax, e-mail or phone. If our staff is unable to answer them, we will call upon our panel of experts. Names and addresses should be submitted with your questions, but we will withhold names from publication on request. We reserve the right to modify questions to make them more useful to our readers.

### **Q. What is the story behind the lack of vehicle computer chips and how is this impacting the bus industry?**

— *Reader in California*

A. The reason for the shortage of computer chips seems to vary depending on who you ask. One answer is that a chip factory burned down and production fell behind. Another story is that chip orders declined during the pandemic and the industry has to gear up again.

This has had a major impact on some automotive, small truck and van production lines. In turn, the chip shortage has created a lack of vehicles on the used market.

To the best of our knowledge, the biggest impact on the bus industry is with the body-on-chassis, small bus and cutaway markets. The chassis for these smaller buses require chips similar to autos, small trucks and vans and hence are in short supply.

Information that we were able to obtain suggests that production of chassis for these small buses will be very limited in 2022 and 2023. They should increase somewhat in 2024 but may not return to normal until 2025.

What this means for the bus industry is that we might see some movement to short coaches in both purchases and charters to make up for the shortage of body-on-chassis buses and cutaways. It will be interesting to see what happens.

### **Q. I enjoyed the article on John Madden and his buses on the February issue. Does anyone know where those buses are today?**

— *Northeast Bus Operator*

A. We ended up asking Mike Middaugh at Coach Quarters in Ohio since he is our expert in converted coach matters. Here is what we found out.

Madden Cruiser #1, the MCI 102A3, was used by John Madden for his football announcer trips for seven years. It was then acquired by Dick Zimmerman, a producer from the Los Angeles area who moved to Idaho. In later years John reacquired the coach and used it privately. In 2005, he allowed the coach to be used as a mobile command post during the Katrina disaster. Today this coach is in the Pro-Football Hall of Fame in Canton, Ohio.

Madden Cruiser #2 was an MCI 102DL3. After John moved up to his next coach, this coach went back to Custom Coach in Columbus where it was repainted a simple, dark blue, and was displayed at the 1999 FMCA show in Perry, Georgia. The coach was then purchased by a couple that did computer work for medical facilities. They liked having two bathrooms. We do not know where the coach is today.

No one seems to know what happened to Madden Cruiser #3, the first 102EL3. The last two coaches, #4 and #5, have reportedly been resold and are now in California.

### **Q. Do you know when we might be able to see a printed edition of National Bus Trader again?**

— *Several Readers*

A. The basic answer is that the return to a printed edition will depend in large part on a return to normal bus sales and its corresponding normal marketing. If every reader purchased five new buses, it would probably work.

Even if that happened, we would probably retain the digital edition. There are several reasons for this including the fact that readers in foreign countries like being able to get the digital edition much quicker than the printed edition. Some readers are happy with the ability to download a PDF version of every issue to archive and print. Others comment that the digital edition is more timely and takes much less time to distribute than print and mailing. With our sister publication, Bus Tours Magazine, the digital edition is up on the Web two weeks before the print edition arrives.

From where we stand, we do see the industry starting to come back, particularly on the operating end. The bus tour planners and operators deserve a pat on the back for getting bus tours back on the road and leading the return of the industry.

Armed with CERTS money, the coach operators are back on the road with scheduled service increasing. Many operators are now working on bringing the charter market back. Taking advantage of federal funding, some transit operators are placing orders for new buses. Many of these are Zero Emission Buses with battery-electric or hydrogen fuel cell power.

In addition, the school bus operators have made an impressive recovery. With the new Infrastructure Act we can look forward to seeing more school buses go with battery-electric operation.

Right now our biggest need is to get the manufacturers and suppliers on board with reconnecting the bus industry through increased marketing. Our goal here at National Bus Trader is to help those who make an effort because 2022 will probably see changes in market share for those companies that make an effort.

### **Q. What are the advantages of hydrogen fuel cell power for buses? I see several transit operators ordering them.**

— *Midwest Transit Manager*

A. Hydrogen fuel cell buses use simple hydrogen for fuel. It is combined in a fuel cell with oxygen from the air. The result is electric power to run the bus and the “exhaust” is clean water.

Advantages are that hydrogen is fairly easy to obtain and can be generated from water. You are not dependant on the power grid in case of electrical problems. The bus runs on electrical power which makes it clean, quiet and easy to maintain. Refueling does not take much longer than refueling with diesel.

There are experts suggesting that hydrogen is becoming more popular, and we may be seeing more buses powered by hydrogen fuel cells in the future.

*Answers not credited to other individuals are provided by Larry Plachno.* □

# Bus of the Month

## New Flyer Xcelsior CHARGE NG™

Launched in March of 2021, Xcelsior CHARGE NG™ is New Flyer's next generation, battery-electric transit bus, built on the proven Xcelsior® platform. Based on North America's first low-floor transit bus introduced by New Flyer in 1991, the Xcelsior was launched in 2009, with more than 16,000 delivered to date. Having surpassed 4.5 million service miles with its battery-electric Xcelsior CHARGE® and fuel cell-electric Xcelsior CHARGE H2™ buses, New Flyer applied the best of zero-emission design, performance, research and ingenuity to develop its newest electric bus.

New Flyer's Xcelsior CHARGE NG incorporates three distinct technology advancements to deliver a high-performance bus, including next generation high energy batteries that extend range up to 13 percent, advanced protective battery packaging designed for easy install and simpler serviceability, and a new lightweight electric traction drive system with up to 90 percent energy recovery.

It harnesses the best technology on the market including a streamlined design that reduces maintenance, increases energy density and improves energy recovery while significantly reducing weight – offering a lighter, more energy-efficient and longer-range electric bus. With better manufacturability, higher energy recovery, fewer parts, and improved system durability, the Xcelsior CHARGE NG is a high-performance bus that is more sustainable and easier to maintain.

New Flyer manufactures its own batteries in its bus production facilities. The battery packaging, developed by New Flyer, utilizes a single waterproof enclosure design and offers weight reduction and simpler maintenance, decreasing the number of parts by 90 percent. Its streamlined approach also allows technicians to simply “plug in” or “unplug” individual battery packs, significantly reducing bus downtime and allowing easy replacement as needed in future.

High-energy, long-range batteries utilize an active liquid cooling system to maintain



Xcelsior CHARGE NG

temperature and respond quickly to increases in power demand and environmental loads. The batteries are also better insulated, lending optimal temperature maintenance, prolonged battery life and greater power efficiency. Finally, the Siemens ELFA 3 traction system delivers up to 90 percent energy recovery and weighs 69 percent less than ELFA 2, allowing greater passenger capacity and lending more efficient design through compact inverters and embedded drive controllers.

Alongside vehicle technology advancements, New Flyer has evolved the manufacturing and field services processes to ensure a safe, reliable, scalable approach to be ready

for tomorrow's growing electric bus demand today. Also, training has been enhanced for New Flyer teams and those of transit agencies across North America, enabling EV adoption while supporting continuous workforce development to drive the new mobility era.

With Xcelsior CHARGE NG, New Flyer expands its advanced line up of EV and AV products, ready to meet tomorrow's urban mobility demands today.

To learn more about Xcelsior CHARGE NG, visit [newflyer.com/NG](http://newflyer.com/NG). □

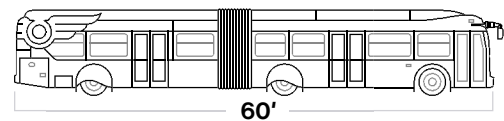
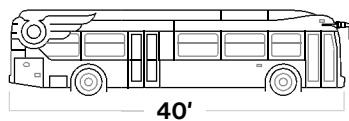
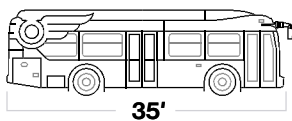
# xcelstor *CHARGE NG*<sup>™</sup>

Our next generation, battery-electric,  
zero-emission bus.



Xcelstor CHARGE NG<sup>™</sup> is New Flyer's next generation battery-electric, zero-emission bus. It is lighter, simpler, has longer range with better energy recovery and is smart city capable – making it the most advanced electric bus on the market.

### Available in 3 Lengths



## Three distinct technology advancements to deliver a high-performance bus.



### High-Energy Batteries

Next generation high-energy batteries.



### Battery Packaging

Advanced protective battery packaging designed for easy installation and streamlined maintenance.



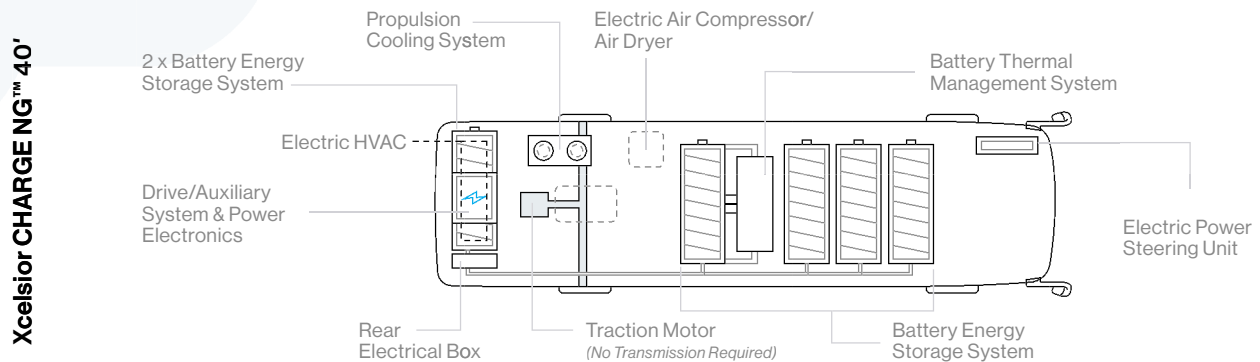
### Traction Propulsion System

A new lightweight electric traction propulsion system with up to 90% energy recovery.



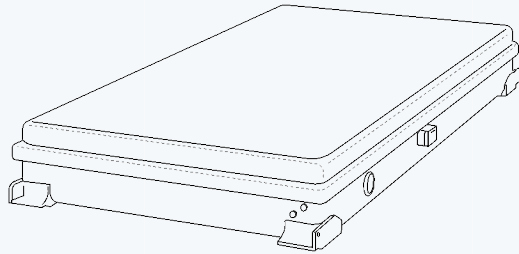
## How it works.

The Xcelsior **CHARGE NG™** uses an electric motor powered by energy stored in rechargeable batteries.



## Technology advancements.

### 1 More efficient and streamlined battery enclosure.



A standardized waterproof battery enclosure is mounted on the rooftop and in the propulsion compartment using a "plug and play" approach, lending simplicity and efficiency in design, install, maintenance and manufacturing.

Rooftop application uses a modular approach with a simplified mounting system comprised of two rails running the length of the bus.

The same standardized battery enclosure is also mounted in the propulsion compartment on a rack. With this approach, the same battery enclosure can be mounted in any position on the bus.

#### Simpler

- ✓ One simple and standardized approach for better quality, consistency, and accuracy.
- ✓ If a battery needs to be replaced, the module can be removed and replaced with a new/backup module. The module needing troubleshooting can be serviced in the shop while the bus with the new/backup module onboard returns to service.
- ✓ With every battery having the same enclosure, service manuals are the same for every single bus model and length.
- ✓ Service parts are reduced by 90% going from 250 to less than 50 parts.

#### Waterproof

- ✓ With an ingress protection rating of IP67, the battery enclosure is 100% waterproof if submerged in water, which greatly reduces the likelihood of water leaking into the battery enclosure.
- ✓ With an ingress protection rating of IP69 for dust, high temperatures, and high-pressure washing, there is 100% protection from intrusion of dust or water particles. This is ideal for demanding operating conditions, and situations where sanitization and rigorous cleaning is undertaken.

#### More Efficient

- ✓ Modules are better insulated resulting in better management of battery temperature for optimal performance.

#### Easier to Service

- ✓ The casings are built using a reinforced composite fiber that is non-conductive.
- ✓ Service technicians can simply and safely plug in or unplug the battery module with less exposure to high-voltage electricity.

#### Lighter

- ✓ The standardized battery enclosure is lighter in weight, increasing the maximum passenger capacity on the bus by 4 additional standees.



Six minutes of rapid recharge time with a 450 kW charger equals 1.5 hours of operation.

Rapid charge configuration fully compliant with OppCharge and charging protocols.



## Charging.

New Flyer buses are interoperable with charging equipment that supports all heavy-duty electric vehicles. You can customize your Energy Storage Systems (ESS) and charging solutions so you can develop the right ESS and infrastructure solution for your needs.

Xcelsior CHARGE NG™ is interoperable with charging systems available from:



### On-Route Charging

The on-route rapid charger provides the means for the Xcelsior CHARGE NG™ to stay in service 24 hours daily. To charge, the bus stops underneath the charger and the pantograph makes contact with the charge bars.

### Plug-In Charging

Plug-in chargers are available as a supplement or alternative to on-route rapid chargers and can be used for overnight, mid-day and o\_-route charging. Depot charging for a full charge requires 3.8 hours for a 525 kWh ESS.

**The 40' Xcelsior CHARGE has a range of up to 251 miles (525 kWh)\* on a single charge, but with on-route charging, range is unlimited.**

\* Range per FTA Altoona test protocol - HVAC off.

Length	ESS (kWh)	Range (Miles)
<b>35'</b>	350	179
	440	220
<b>40'</b>	350	174
	440	213
	525	251
<b>60'</b>	525	153

	35'	40'	60'
<b>Measurements</b>			
<b>Length</b>	36' 3" (11.05m) Over bumpers; 35' 5" (10.80m) Over body	41' 0" (12.50m) Over bumpers; 40' 2" (12.24m) Over body	60' 10" (18.54m) Over bumpers; 60' 0" (18.29m) Over body
<b>Width</b>	102" (2.6m)	102" (2.6m)	102" (2.6m)
<b>Roof Height</b>	11' 1" (3.3m) Over charging rails	11' 1" (3.3m) Over charging rails	11' 1" (3.3m) Over charging rails
<b>Step Height</b>	14" (356mm)	14" (356mm)	14" (356mm)
<b>Front Step Height (Kneeled)</b>	10" (254mm)	10" (254mm)	10" (254mm)
<b>Interior Height – Floor to Ceiling</b>	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach	79" (2m) Over front and rear axle; 95" (2.4m) Mid-coach
<b>Tire Size</b>	305/70R22.5	305/70R22.5	305/70R22.5
<b>Wheelbase</b>	226.75" (5.8m)	283.75" (7.2m)	229" (5.8m) Front / 293" (7.4m) rear

<b>Propulsion</b>			
<b>Motor</b>	Siemens electric drive system; Standard or optional high gradeability motor	Siemens electric drive system; Standard or optional high gradeability motor	Siemens electric drive system; ZF AVE130 in-wheel motor center drive axle
<b>Rated Power</b>	160 kW	160 kW	320 kW
<b>Rated Torque</b> (*Based on 1:5.67 ratio axle)	1,033 lb-ft	1,033 lb-ft	2,066 lb-ft

<b>Passenger Capacity</b>	*Based on 160 kWh (35'/40') & 213 kWh (60') ESS configurations, with ELFA 2 Siemens Traction System		
<b>Seats</b>	Up to 32*	Up to 40*	Up to 61 (with one exit door)*
<b>Standees</b>	Up to 35*	Up to 44*	Up to 62 (with one exit door)*

<b>Accessibility</b>			
<b>Doors</b>	2	2	2 or 3 (option for up to 5 doors)
<b>Wheelchair Accessibility</b>	32" (813mm) Wide, 1:6 slope; Flip out NFIL ramp, front door	32" (813mm) wide, 1:6 slope; Flip out NFIL ramp, front door	32" (813mm) wide, 1:6 slope; Flip out NFIL ramp, front door
<b>Wheelchair Locations</b>	2 - Front location, rear location also available (other options available)	2 - Front location, rear location also available (other options available)	2 - Front location, rear location also available (other options available)

<b>Approach Angle</b>			
<b>Approach/Departure/Breakover Angles</b>	9°/9°/12°	9°/9°/9°	9°/9°/12° (front) 9° (back)

<b>Turning Radius</b>			
(Body, with aluminum wheels; *Varies with wheel type)			
<b>Turning Radius</b>	39' (11.9m)*	43.5' (13.3m)*	42' (12.8m)*

<b>Main Components</b>			
<b>Floor</b>	Marine grade plywood floor; Optional composite floor; Composite rear interior step; Tarabus, Altro, RCA floor covering	Marine grade plywood floor; Optional composite floor; Composite rear interior step; Tarabus, Altro, RCA floor covering	Marine grade plywood floor; Optional composite floor; Composite rear interior step; Tarabus, Altro, RCA floor covering
<b>Electrical System</b>	Parker Vansco	Parker Vansco	Parker Vansco
<b>Propulsion Cooling System</b>	Electric cooling fans	Electric cooling fans	Electric cooling fans
<b>HVAC</b>	Thermo King TE15 (rear)	Thermo King TE15 (rear)	Thermo King RLFE (front) TE15 (rear)
<b>Axles</b>	MAN VOK 07 Front disc brakes; MAN HY-1350 Rear disc brakes; Single reduction axle	MAN VOK 07 Front disc brakes; MAN HY-1350 Rear disc brakes; Single reduction axle	MAN VOK 07 Front disc brakes; ZF AVN 132 Center disc brake; MAN HY-1350 Rear disc brakes; Single reduction axle

<b>Energy Storage System</b>			
<b>Long Range</b> (Rapid charging available)	350 kWh, 440 kWh	350 kWh, 440 kWh, 525 kWh	525 kWh

# Survival and Prosperity

by Ned Einstein



## Survival and Prosperity Part 2: The Magic Coach

In Part 1 of this series titled Magic Corridors (see <https://transalt.com/article/survival-and-prosperity-part-1-magic-corridors/>), I outlined a strategy by which the motorcoach industry could explode into moderate-length corridors otherwise dominated by commercial airlines. Arithmetically, this strategy would seem impossible to fail. Part of the ability to realize this expansion, and offer a wildly-beneficial alternative, lies in the adaptation of the coach deployed in such a service.

The paragraphs below will outline the characteristics these vehicles will need. It will summarize both a rationale and perspective for the modifications suggested. (Part 3 in this series will expand on these points.) Most interesting is that few of the modifications needed would be those referred to, in the bus manufacturing industry, as “engineering changes” – which can be complex and costly. The vast lion’s share lie above the floor.

*All but one major commercial airline offer first-class seating.*

### Privacy, Luxury and Class

Other than on tiny “puddle jumpers,” all but one major commercial airline (Southwest Airlines) offer first-class seating. Most offer “business class” seats as well. Those who do not travel by train may not know that many trains among our passenger rail monopoly offer not only “quiet cars” and first class compartments, but both tiny sleeping compartments and small-bedroom-sized sleeping compartments which span all but about 30 inches of the train car’s width. Those who do not travel abroad are likely unaware that many country’s subways (e.g., the Paris Metro) have first-class cars. I imagine buses and motorcoaches in many countries do as well. The fares are higher, but everyone gets a seat. The “well-heeled” crowd (likely wearing running shoes today) share their car with mostly fellow well-heeled riders. Such a feature would be particularly desirable – and sellable – in the Age of COVID – especially

for both the most vulnerable as well as the anti-vaxxers (a subpopulation which overlaps considerably).

No domestic motorcoach on which I have ever ridden contains such a choice. Why not? This feature may not seem so critical in terms of comfort, as all motorcoach seats bear a close resemblance to business class airline seats: Wide, plush seats, with individual lighting and A/C controls, Wi-Fi and often fold-down trays. Not extra legroom, and not better service. Why not? After all, even coast-to-coast commercial airlines stopped serving meals years ago – except to first-class customers on a few, highly-selective flights. How hard would it really be to compete with this abstinence on a 45-foot, 8½-foot wide motorcoach with only four seats across the entire width of the coach?

*The competitive motorcoach should have a first-class section.*

The competitive motorcoach should have a first-class section. With far more legroom, four rows of luxurious stretch-out seats would consume the space of five regular rows. Four seats lost – oh, well. Otherwise, a curtain (or better yet a sound-proof door and shield behind the last of these seats) could separate the two sections.

### Comfort and Convenience

The obvious amenities would cost a pittance: Blankets, pillows, TV screens (presenting movies, TV and music), headphones and footrests. With any imagination, and some clever engineering, seatbacks could fully recline throughout the coach. (The increased legroom in the first-class section could accommodate padded, raised leg rests, even in seating position.) Along with open overhead luggage racks, one could have a drawer. A small slice of space in both first class and “coach” could serve as a closet. Next day’s clothing could end up wrinkle free when slipped on in one of the now-two, slightly-larger restrooms. (Oops, two more seats gone.) These restrooms could contain some amenities beyond toilet paper – like real towels.

Since it would make imminent sense for the Magic Coach to have an attendant on board, the used towels could be placed in a bin and replaced with clean, fresh ones. (The used ones could drop into a container in one of the luggage bays; fresh ones could be stored below the floor and retrieved by the attendant in batches during rest stops.) Passengers needing them could be given toothbrushes, toothpaste, dental floss, anti-bacterial fluids and other lotions.

With revamped seating designed to accommodate full reclining (I am not giving this approach away; I design buses for a living), new possibilities for storage also emerge – much of it beneath the seats. One could also bring aboard one’s own food and drink. There would be no need to cook or mix anything. Particularly since the Age of COVID began, many of the world’s best gourmet restaurants offer large menus “to go.” The coach would simply have them delivered to a single collection point along the way. (Savvy passengers can order and pay for them through apps on their phones.) The attendant would simply warm these nuptials up. The coach would need no galley, no stoves, no pots, no pans and no utensils. It would only need a few microwaves, a couple small refrigerators and an ice-maker. Oops! There go two more seats; now we have lost eight.)

How much more could metal silverware and cloth napkins cost? Or real dishes? Oops! Now we would need a dishwasher. A ninth seat gone – drats. Like washcloths and towels, napkins, sheets, blankets and pillow cases could be cleaned and replaced at storage yards or bus terminals. A second restroom will replace the 10th seat. Finding room to make both restrooms slightly larger should be easy.

### Accessibility and Flexibility

In numerous ways – not just accommodating wheelchair users – coaches with vestibules make enormous sense for shaping into the ultimate coach for this duty cycle, and helping it to run more efficiently, more realistically and more safely – apart from the advantages its extra stepwell would add to multiple logistics, not to mention faster boarding and alighting, much less faster emergency evacuation. I have touched upon a myriad of benefits of this approach in former articles of NATIONAL BUS TRADER (see <https://transalt.com/article/a-para->

# Survival and Prosperity

[digm-shift-in-motorcoach-accessibility-part-1-the-mci-d45-crt-le-commuter-coach-2/](https://transalt.com/article/a-paradigm-shift-in-motorcoach-accessibility-part-1-the-mci-d45-crt-le-commuter-coach-2/); <https://transalt.com/article/a-paradigm-shift-in-motorcoach-accessibility-part-2-the-mci-d45-crt-le-commuter-coach-2/>, and <https://transalt.com/article/paradigm-shift-in-motorcoach-accessibility-part-3-the-mci-d45-ctr-le-commuter-coach/>.

MCI hardly has a patent on the concept of its model MCI D4500 CRT LE. Any OEM can complete the potential of this brilliant starting point. More creative applications only expand the possibilities for this concept's versatility. If we took advantage of this concept, we would lose two more seats: Now 12 lost – darn! In exchange, of course, we would have far more flexibility for storage. Such flexibility dwarfs its accessibility advantages.

## Rocking in the Cradle

Plenty of motorcoach passengers already take “overnighters” to eliminate the cost of a night or two in a hotel or motel. They sleep, uncomfortably, sitting up. Their next day's clothing is wrinkled. They can only swab their underarms. All this will change with fully-reclining seats, good bedding, larger restrooms and two showers. (Oops! There go two more seats; now we have lost 14.) Otherwise, with some emulsifiers or filters to eliminate the soapy water, the drainage from the showers could circulate through the coach's cooling system – much as the engine's super-heated alcohol flows through the passenger and driver compartments' heating system.

By the way, most of these amenities would be positioned on the aisle side – maximizing privacy and allowing more passengers the luxury of a window seat. Otherwise, the showers could be steam showers – requiring far less water, and easier high-pressure pumping from small water tanks below the floor – lowering the coach's center-of-gravity in the process, and making the ride even smoother and safer.

*It takes no effort to get used to luxury.*

For those unfamiliar with sleeper cars, the lateral “roll” operates like a cradle, actually rocking one to sleep. During my early 1980s stint as a piano player on AMTRAK's Montrealer, with my tiny sleeper car, I had more trouble falling asleep on off nights, in my apartment's regular, stationary bed. It takes no effort to get used to luxury.

While our 57-passenger business class coach has now become a luxury 43-bed hotel-on-wheels, these 43 seat-beds would cost a tiny fraction of even the cheapest 43 motel rooms. Plus, beyond the effortless-ness of warming up great meals, there would be no end to great snacks and plenty of room to store an ample variety to choose from if and when one wanted to slurp or nibble. For those less picky small spenders, every town on the route also has a great pizza parlor and a range of fast food joints. Of course, one could obtain fast food in any airline concourse – if one does not mind paying triple for it, wait in line and either eat it immediately or when it gets cold. (Just dare ask your flight attendant to reheat your chili dog.) On airlines, one may not bring aboard any liquids not purchased in the concourse – including soup, wine and many others. If you did not wish your Magic Coach to pick up and store it for you, you could always drag-along your carry-on solid food. With the choices noted, who would do this?

Finally, it would be unreasonable (and unsafe during certain segments that the driver could easily identify) for our attendant to remain standing during the entire ride. That leaves our passengers with only 42.

## Addition, Subtraction and Common Sense

Especially since even the richest, snobbiest passengers could travel in first class on the Magic Coach, I have troubling identifying the benefits of a moderate-length commercial airline flight. This is particularly true for those who choose to skip the hotel or motel and its costs and hassles. Even for those who do not (and who might simply prefer a far-more-comfortable daytime trip, where he or she could relax or get work done, in luxury), the pluses for air travel are hard to find.

The Magic Coach would travel from city center to city center, passing through other city centers along the way – and avoiding those long two-way commutes often compounded by airport parking (unless one enjoys urban and freeway-to-airport traffic). Taxi and limousine rides are much-preferred, although they usually cost exponentially more than the trip to and from a bus depot or Magic Coach parking spot in the center of the city.

Not only is food possible on the Magic Coach, but great food is possible – and effortless. No food is possible on commercial airlines, other than for first-class passengers on an increasingly limited number of even coast-to-coast flights. On moderate-distance flights, one's meal is a small package of Cheetos or Oreos (although I like the animal crackers).

With the Magic Coach properly configured, one's seat could fully recline – even in “coach.” One can do this on long flights – but only on Philippine Airlines. Oops! America does not allow foreign-owned airlines to provide domestic service. Sorry. One can hang up clothing, in the first-class section, on a limited number of domestic flights, but one cannot do this in “coach.” With a properly-configured Magic Coach, this would be available in both sections.

The Magic Coach's two restrooms could be significant larger than those of a commercial airplane. One cannot take a shower on any airplane (other than perhaps Air Force One, and other large private planes). The Magic Coach would contain two. The first-class legroom of the Magic Coach would be comparable to the legroom in the first-class section of a commercial airplane. The “coach” legroom would be greater even without the changes that might sacrifice four more seats. Needless to say, the Magic Coach's coach-class seats would be comparable to those of a commercial airplane's business class seats.

One would obviously not experience turbulence, or be forced to wear a seat belt during the first and last 20-minute segments of the trip. In fact, during many portions of the trip, the Magic Coach's pneumatic suspension system would provide a smoother ride than much of an airplane trip. To be fair, the likelihood of either mode crashing is comparable, and luckily, rare. Of course, Magic Coach crashes result mostly in major or minor injuries. No one survives an airline crash.

To be fair, more terrorist attacks occur on buses, throughout the world, than on passenger aircraft. Yet none have yet happened on a bus or coach of any kind in the U.S. Otherwise, there is no upside to the security lines, X-ray bins, shoe-and-belt removal rituals endemic to a flight of any length. While I understand and accept the need for it, I am not fond of having the inside of my thighs and my genitals patted down, even while I am allowed to keep my clothes on.

Since no food is served on board, and lines are typically long for any concourse restaurant, I resent paying triple for the lousy food I can even obtain in an airport concourse.

Even eschewing trip reservations – which savvy Magic Coach providers would accommodate with live Earthlings answering the telephone (as well as by coherent Web sites that actually work) – one could travel by Magic Coach without a reservation. He or she would just have to find one with an available seat – a curiosity that could be con-

# Survival and Prosperity

*Savvy Magic Coach providers would accommodate with live Earthlings answering the telephone.*

firmed with a simple phone call or quick cell-phone inquiry. One would have to sacrifice the swell hold music accompanying those multi-hour sessions-on-hold in which, to be fair, most callers have earned to multi-task through. One might miss the challenges of online air reservation puzzles, replete with credit card entries, passwords and other joys of modern communications which would be unnecessary for Magic Coach travel, on which passengers could even pay cash upon boarding. (Try that trick on a commercial airline.)

For the conservation-conscious, most motorcoaches of all types produced by 2030 will be battery-powered. With the enormous energy needed to defy gravity, such savings in energy and pollution would be inconceivable for commercial airline travel. Since most medium-distance Magic Coach trips would encompass one or two rest stops, batteries could be recharged at the charging stations already proliferating. If not, and especially with the convenience and ease of gourmet food and more restrooms, the Magic Coach could ignore such stops altogether. This would likely translate into larger batteries – and perhaps the loss of four more seats (to offset the weight of a larger battery), and fares would increase by 10 percent as seating capacity shrunk from 42 to 38 seats.

Finally, ignoring all the inconvenience of medium-distance airline travel, the difference in fares would be substantial and dramatic. A current medium-distance motorcoach trip costs a fraction as much as the same trip by commercial airplane. If we ever live through the Age of COVID, airline fares will once again escalate to the point where the same trip by motorcoach would cost even less. Of course, fares would understandably increase to travel by the Magic Coach – since the former 57-passenger coach would now have only 42 (or 38) seats. Further, if first-class fares were a tad higher, they would subsidize coach-class fares, and these latter would not need to be increased at all. Even if they did, how much higher would they need to be to amortize the cost of features that would not greatly increase the cost of either the vehicle or its operation (most of which would be the cost of the attendant)?

## Fairness and Perspective

In the grand scheme of things, the commercial airline industry has been, and still is, a blessing. And a wonder. One can travel from coast to coast in half a day – including the connections at each end, and all the airline-induced hardships, risks, inconveniences and corruption along the way. For three years, I commuted effortlessly between Los Angeles, Paris and Maribor (see “The Nature of Modern Travel” in NATIONAL BUS TRADER, September, 2019, at <https://transalt.com/article/drivers-v-robots-part-2-the-nature-of-modern-travel/>). Commercial air travel made those years of my life possible. For all those things, I am grateful.

However, wonders can be grossly overextended. Like many great things, greed and apathy have crushed the notion of competition that once formed the rationale for the notion of free enterprise. Overextended with impunity, airline travel today means commuting from the center city or suburb to some outlying airport, arriving 90 minutes early, passing through understaffed security lines, regularly having the inside of your thighs and genitals rubbed, having your flight delayed or cancelled, struggling for hours through broken Web sites or on hold in telephone calls to obtain a reservation, being transferred to flights you never agreed to so that corporate crooks can deploy only aircraft completely full (much less in the heart of COVID-19), and occasionally being stranded overnight and forced to constantly cruise airport corridors the following day as you are bounced from one stand-by rejection to another (see <https://transalt.com/article/expanding-the-mode-split-dividing-line-part-1-exponential-airline-industry-corruption/>). As we have few other choices (Southwest Airlines excepted) for long trips, the good outweighs the bad.

These hardships and corruption do not remotely outweigh the bad for a 300-mile flight. Apart from other extraordinary benefits of Magic Coach travel, they hardly outweigh the bad of a 700-mile flight. With the vehicle enhancements noted, most air travelers would be foolish (much less gouged and cheated, with considerable time and cost squandered) to travel such distances by commercial airline – where and when such options are even available.

Of course, to be successful, the new Magic Coach sector would not need to mode split more than a tiny fraction of current commercial airline travelers. (They could easily make up for these tiny losses by consolidating a few more flights.)

Unlike my feelings about TNCs, I have no desire to wipe out or disrupt the airline

*After all, service does not exist – or should not exist – for the benefit of the servers.*

industry. I would simply like to see something far superior replace it in certain types of service areas – mainly smaller ones. After all, service does not exist – or should not exist – for the benefit of the servers. It exists, or should exist, for the benefit of those served. Customer service had always been the lynchpin of the motorcoach industry. More and more lately, the lynchpin of commercial airline service has been exploitation.

My hope is that these thoughts are provocative. If NATIONAL BUS TRADER readers – and their family, friends, colleagues and social media contacts – feel likewise, perhaps something can be done about it. Like a reasonable expression of interest – particularly among motorcoach operators.

Otherwise, as the old song goes: I’m not trying to set the world on fire. I just want to burn a hole in your heart.

*The opinions expressed in this article are that of the author and do not necessarily represent the opinions of NATIONAL BUS TRADER, Inc. or its staff and management.* □

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## Down The Road

Coming events of interest to readers of NATIONAL BUS TRADER. Submissions for the department should be directed to the editor. Unless otherwise indicated, events are not open to the general public.

March 21-22, 2022. **Pennsylvania Bus Association Marketplace.** Liberty Arena, Williamsport, Pennsylvania. For more information view pabus.org.

March 23-26, 2022. **FMCA's 104th International Convention and RV Expo.** Pima County Fairground, Tucson AZ 85747.

August 24-27, 2022. **FMCA's 105th International Convention and RV Expo.** Lincoln, Nebraska.

November 13-16, 2022. **Travel Exchange.** Reno Tahoe, Nevada.

March 15-18, 2023. **FMCA's 107th International Convention and RV Expo.** Georgia National Fairgrounds and Agricenter, Perry, Georgia.





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