

TRANSPORT INNOVATOR

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Welcome to *Transport Innovator*, a free newsletter dedicated to sharing information about innovative, cost-effective transportation solutions. We welcome comments and ideas for future stories. Please feel free to contact us – we look forward to hearing from you. Free subscriptions are available at www.gobrt.org

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Editorial

The continuing saga of the TransJakarta BRT system

Once hailed as a major solution to projected gridlock, Jakarta's BRT system is now facing a serious crisis. Understanding what went wrong, and figuring how to fix it, are crucial to Jakarta's future as well as the future of BRT projects in other developing countries.

In late 2001, then-Governor Sutiyoso decided to introduce a BRT system in Jakarta. In 2003, two trips were made to Bogota, Colombia to learn about Bogota's TransMilenio BRT, including a trip by the Governor himself in May 2003. A task force was established to implement BRT, and the first trunk corridor busway, operating through the city center, officially opened in January 2004.



This corridor showed early signs of success. For example, a passenger survey during the first month of operation showed that 20 percent of busway passengers previously had made the same trip by private car. By July 2004, the busway was carrying an average of 46,000 passengers per day, significantly exceeding expectations. Unfortunately, however, there also were signs of trouble. For example:

- The buses and some of the stations were too small, leading to overcrowding.
- The buses were a bizarre design, with only one door on each side.
- A security attendant was placed inside the bus by the door, blocking the flow of passengers.
- Pavement quickly needed to be replaced because it was designed only for cars, not for buses (note: this is an issue that has occurred with a number of BRT projects and is not unique to TransJakarta).
- Stations did not have a passing lane and had only one door for entry and exit.
- Responsibility was dispersed among government agencies (e.g., responsibility for building the dedicated lanes was assigned to the public works department while responsibility for building supporting infrastructure, such as shelters and pedestrian bridges, was assigned to the transportation department).
- Perhaps most ominously, citizens complained that the busway had made congestion significantly worse, not better.

These and other issues quickly led to overcrowding and significant travel delays. Nevertheless, a decision was made to expand the network without fixing the problems in the first corridor, and a goal was established to build 15 new corridors by 2010. Planning was sacrificed in favor of speed of

construction, causing various problems to occur as successive corridors opened.

In Corridor 5, for example, pedestrian bridges had not been completed prior to opening the busway, causing passengers to randomly cross streets and busway lanes. Construction on Corridor 8 began without a completed environmental impact statement, angering local residents. Only two CNG refueling stations were built to serve 238 buses in corridors 2 through 7, causing buses to wait as long as two hours to refuel. Corridors 4 through 7 were opened with only 8 of 129 planned buses operational.

Similarly, several corridors were opened without adequate contracts and institutional arrangements with the bus operators. For example, corridors 4 through 7 have been operating for more than a year without a contract with the operator.

By 2007, seven corridors were open, but problems continued to mount. TransJakarta was carrying roughly 250,000 passengers per day, most of whom were unhappy, according to local news reports. Motorists also were unhappy, continuing to blame the busway for increased traffic congestion.



Photos: DKI Jakarta

By the end of 2007, a decision was reached to temporarily stop construction on the busway network. Moreover, some of the dedicated transit lanes were opened to traffic as a way to reduce congestion. Busway ridership has dropped to 180,000 passengers per day, largely due to growing travel delays and commute times.

So where to go from here? The underlying concept for TransJakarta -- an integrated busway network -- remains

excellent. Approximately 1.5 million cars were sold in Jakarta in 2006 and this number is increasing by 10 percent per year, according to the Jakarta Post. An extensive, integrated BRT network is one of the best and most cost-effective ways to mitigate the impact of the growing car population.

The problems with TransJakarta are largely failures in implementation, including a political desire to open as many corridors as quickly as possible, poor design choices, poor institutional arrangements, and a failure to mitigate the impact of the bus lanes on general purpose traffic. Therefore, we believe that Jakarta should commit itself to technical and institutional reforms that will enable TransJakarta to achieve its full potential. Some ideas we would offer for consideration include:

- switching to articulated buses with at least three doors;
- passing lanes at stations where practical;

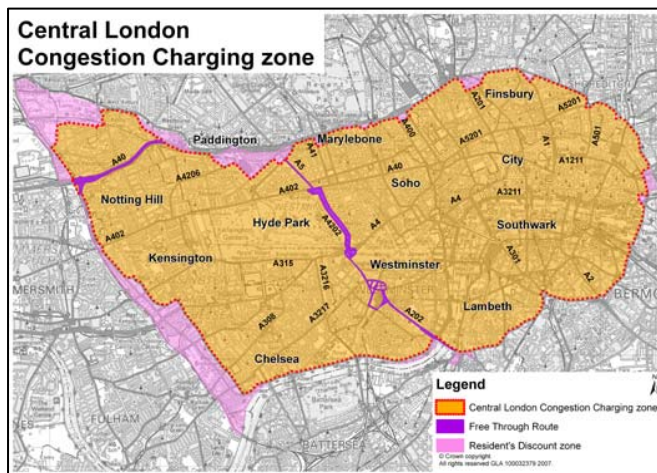
- rebuilding of the stations to make them larger and to add additional exit and entry points and platforms;
- improved feeder services;
- the use of contraflow bus lanes where practical to prevent cars from using bus lanes (this idea currently is under consideration in some corridors);
- creating a single organization to plan and operate the system; and
- mitigating the traffic congestion in the general purpose lanes in TransJakarta corridors.

TransJakarta can still become a positive example for cities in Asia and other developing regions. Understanding what went wrong, addressing critical issues, and learning lessons that can be applied to future projects should be a high priority.

Spotlight

2008 Sustainable Transport Awards

At this year's annual Transportation Research Board conference in Washington DC, a number of cities received Sustainable Transport Awards. These awards, presented by the Institute for Transportation and Development Policy, are bestowed to cities that are "enhancing sustainability and livability of their community or region by adopting innovative transportation strategies that lessen the impact of climate change by reducing transportation greenhouse and air pollution emissions."



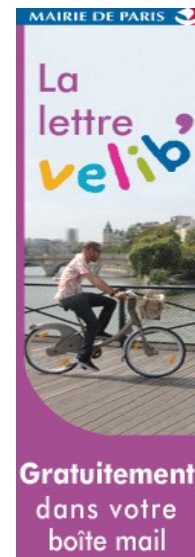
London was recognized for implementing a congestion charging zone and for the city's increased motor vehicle fees and new city-wide emission-based tolls. As a result of these measures, traffic congestion decreased by 21% during 2007, with about 70,000 fewer vehicles entering the city's congestion pricing zone each day. Bus ridership increased 45% due to reduced travel times resulting from

congestion pricing, and bike use is up by 43%. Carbon dioxide emissions have been reduced by 16%.

Paris was recognized for its Velib (Freedom Bikes) program, which allows registered users to borrow a bicycle for a low fee and return it to any bike parking station in the system (1,200 stations and 15,000 bikes). Velib has registered more than a million users and over 11 million bicycle trips have been made. In addition, Paris has built more than 314 km of bike lanes, implemented three new BRT corridors, and is prioritizing pedestrians by renovating public squares & plazas, widening sidewalks and adding new landscaping and raised crosswalks.

Honorable mentions were awarded to Guatemala City for its TransMetro BRT and sustainable development efforts; Eugene, Oregon for the EmX BRT; and Pereira, Colombia for its Megabus BRT and land use development.

Source: <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/01-14-2008/0004735925&EDATE=>



FTA's FY 2009 Small Starts funding recommendations

The US Federal Transit Administration (FTA) recently issued its fiscal year 2009 funding recommendations under the New Starts and Small Starts programs, the federal government's primary funding source for major transit capital investments. The following is a summary of the six new BRT or rapid bus projects recommended for FY'09 funding under the Small Starts program:

- Flagstaff, Arizona: The **Mountain Links BRT** will be a 5.8-mile BRT line serving the campus of Northern Arizona University, nearby shopping centers and downtown Flagstaff. The project will include 24 new stations, signal priority and purchase of eight hybrid-electric vehicles. Capital cost: \$10.41 million. Proposed Small Starts share: \$6.24 million (60%). FTA FY 2009 funding recommendation: \$6.24 million.
- Livermore, California: The **Livermore-Amador Route 10 BRT** will be a 12.0-mile arterial and highway-running BRT line serving Livermore, Pleasanton and Dublin. The route will include 34 new stations, signal priority and purchase of 14 electric-hybrid vehicles. Capital cost: \$21.66 million. Proposed Small Starts share: \$10.93 million (less than 50%). Congressional appropriation: \$2.94 million through FY 2008. FTA FY 2009 funding recommendation: \$7.99 million.
- Los Angeles, California: The **Wilshire Boulevard Bus-Only Lane** will implement a dedicated bus lane along portions of a 12.5-mile length of Wilshire Boulevard between downtown Los Angeles and Santa Monica. The line will feature 9.6 miles of curb lanes converted to an exclusive facility during peak period operations. Capital cost: \$31.51 million. Proposed Small Starts share: \$23.32 million (74%). FTA FY 2009 recommendation: \$10.95 million.

- San Diego, California: The **Mid-City Rapid** will be a 10-mile arterial BRT route connecting downtown San Diego and San Diego State University. The alignment would run primarily along three of the region's older and densely populated Mid-City neighborhoods. The line will feature 11 enhanced bus shelters in each direction, real-time passenger information, signal priority, and 15 low floor, advanced technology buses. Capital cost: \$43.3 million. Proposed Small Starts share: \$21.65 million (50%). FTA FY 2009 recommendation: \$21.65 million.
- Fort Collins, Colorado: The **Mason Corridor BRT** will be a 5.0-mile BRT within the Mason Transportation Corridor, parallel to the city's primary north-south arterial and adjacent to BNSF railway tracks. MAX buses would operate in mixed traffic for 1.2 miles and continue in a 3.8-mile exclusive right-of-way. The line will feature signal priority in general purpose lanes, a bus guideway facility, eight enhanced bus stops, 250 park-and-ride spaces, unique MAX branding and five new low-floor buses. Capital cost: \$74.19 million. Proposed Small Starts share: \$59.35 million (80%). FTA FY 2009 recommendation: \$11.18 million.
- King County, Washington: The **Bellevue-Redmond BRT** will be a 9.25-mile, street-running BRT connecting downtown Bellevue with downtown Redmond. The project includes 12 new stations, real time bus arrival information, signal priority and 18 low floor, hybrid vehicles. Capital cost: \$26.95 million. Proposed Small Starts Share: \$20.21 million (75%). FTA FY 2009 recommendation: \$10.95 million.

In addition, four BRT projects were recommended for additional funding:

- Springfield, Oregon: The **Pioneer Parkway EmX BRT** will be a 7.8-mile extension of the Franklin Corridor EmX BRT in Eugene, Oregon. The project will feature 14 new stations, signal priority, and purchase of four low floor, branded, hybrid-electric vehicles. Capital cost: \$36.99 million. Proposed Small Starts share: \$29.59 million (80%). Congressional appropriation: \$29.30 million through FY 2008. FTA FY 2009 recommendation: \$296,000.
- King County, Washington: The **Pacific Highway South BRT** will be a 10.9-mile BRT route from Tukwila to Federal Way. The project will include 14 new stations, signal priority, and purchase of 16 low floor, branded, diesel-hybrid vehicles. Capital cost: \$25.07 million. Proposed Small Starts share: \$14.08 million (56.2%). Congressional appropriation: \$13.79 through FY 2008. FTA FY 2009 recommendation: \$281,520.
- Kansas City, Missouri: The **Troost Corridor BRT** will be a 9-mile, street-running BRT line along Troost Avenue, terminating in downtown Kansas City. The Troost Corridor contains the greatest population density in the Kansas City region, along with major employment and entertainment centers. The line will include 25 new stations, real time passenger information, signal priority and purchase of 15 low floor, branded vehicles. Capital cost: \$30.73 million. Proposed Small Starts share: \$24.58 million (80%). Congressional appropriation: \$24.45 million through FY 2008. FTA FY 2009 recommendation: \$125,200.

- Los Angeles, California: The **Metro Rapid Bus System Gap Closure** project will construct and operate eight street-running BRT lines connecting existing Metro Rapid bus routes. The lines have been identified for their potential to reduce end-to-end travel times throughout the existing Metro Rapid system. The project would include 247 new stations spread over 120 miles. Capital cost: \$25.66 million. Proposed Small Starts share: \$16.68 million (65%). Congressional appropriation: \$16.35 million through FY 2008. FTA FY 2009 recommendation: \$332,620.

For more details on these projects, link to FTA's Annual Report on Funding Recommendations at:
http://www.fta.dot.gov/publications/reports/reports_to_congress/publications_7753.html

For more information on BRT funding, see our website:
www.gobrt.org/funding1.html

Guest Column

A New Bus Rapid Transit System in Istanbul

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The Istanbul metropolitan area is rapidly growing, with an estimated population of 12 million, making it one of the largest metropolitan areas in Europe and among the Megacities of the world. Its major corridors experience severe traffic congestion due to the increase in the number of private automobiles-- from 4,422,180 in 2000 to 6,439,708 in 2007, a forty-six percent increase.

To accommodate movement in Istanbul, the Istanbul Metropolitan Government has over the last twenty years constructed three new tram lines, an exclusive right-of-way light rail line, one heavy rail rapid transit line, one funicular and two aerial cable car systems. This is supplemented by an extensive network of public buses, contracted private buses, ferries, commuter rail and shared ride taxis (*dolmuş*). Construction of a tunnel underneath the Bosphorus (the Marmaray Project) to connect the commuter rail lines on the European and Asian side of Istanbul is well underway, although there have been delays due to the discovery of significant archeological findings. There are also plans to build a monorail and plans are

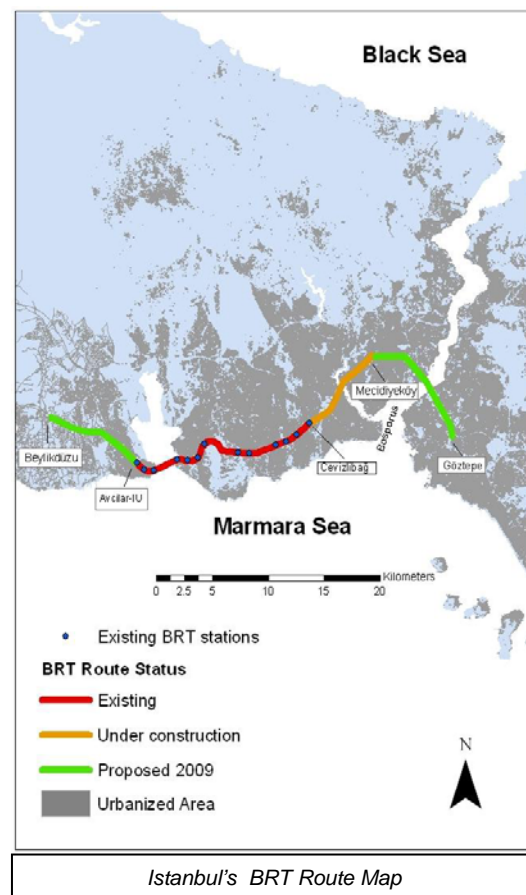
continuing for extensions to the light rail and heavy rail system. All public transportation is operated and managed by the Greater Istanbul Transportation Authority.

Despite these significant transportation improvements, Istanbul is playing “catch-up” to provide an adequate transportation infrastructure for a metropolitan area of its magnitude. The traffic in Istanbul has become so debilitating that a solution that was quick to implement and cost-effective was needed. This led to the consideration of substituting Bus Rapid Transit (BRT) for some of the corridors that were planned for rail expansions.

One of the most congested areas in Istanbul is along a major east-west highway (E-5) on the European side. Although the plans called for a rail line in the median of the E-5, the Istanbul Metropolitan Government determined that it would be more cost effective and timelier to construct a BRT route along the most heavily congested portion of the E-5. A preliminary engineering and feasibility study was conducted by the Transportation Department of the Civil Engineering College of Istanbul Technical University. In 2006, construction began on a BRT line from Cevizlibağ to the Avcılar campus of Istanbul University. Known as “Metrobus,” it became operational in September 2007.

The existing BRT route consists of an exclusive right-of-way (2 counter-direction lanes to facilitate boarding and alighting) in the center of the E-5 with specifically designed platforms and equipped with automatic fare collection machines similar to those used in the station areas in Istanbul’s rail systems. The route has a total of 60 buses operating during the weekday and 40 during the weekends. The present route is approximately 19 kilometers long. The average frequency is 70 seconds on weekdays, 84 seconds on Saturdays and 105 seconds on Sundays. In 2008, the average frequency of the Metrobus is expected to be 30 seconds.

Presently, the average daily ridership is 165,000 passengers. There is an integrated transfer system with other buses and the fixed rail and ferry system. Articulated buses are being used and, by the end of 2008, 50 specifically designed vehicles (the Phileas, manufactured by Advanced Public Transport Systems (APTS) of the Netherlands) will be delivered, and 50 more will be in service by the end of 2009.





APTS Phileas BRT Buses to be put in Service on Metrobus BRT by 2008 (promotional photograph acquired from APTS website at <http://www.aps-dhileas.com/>)

The Phileas is an articulated, hybrid electric-diesel vehicle with a capacity of 230 passengers (52 seats, 178 persons standing room). They are 26 meters long and 2.5 meters wide and conform to the EURO IV standard. The vehicles have a 12.5 meter turning radius and each wheel has independent control so that the buses can come closer to the platforms. The Phileas also can operate without a driver by following magnets embedded in the pavement, but current plans call for the use of drivers.

In 2008, Metrobus will be extended to Mecidiyeköy, at which point the route will be approximately 30 kilometers in length. By 2009, the BRT route is planned to be extended to Göztepe on the Asian side and Beylikdüzü on the European side reaching a length of approximately 50 kilometers. Several more BRT routes are planned, some to replace previously planned light or heavy rail routes.

The construction and extension of the BRT line represents a major shift in public transportation policy for Istanbul, which had previously concentrated only on rail expansions. The ability of BRT to significantly decrease congestion and improve mobility will hopefully be seen in the coming months and years.

A ridership survey of Metrobus was conducted in late 2007 and early 2008 by a research team from Fatih University, headed by Dr. Michael A. McAdams. The purpose was to evaluate ridership socio-economic characteristics, modal changes, passenger satisfaction as compared with regular bus service, and the origin and destination of passengers using Metrobus. Preliminary analysis indicates that the riders are extremely pleased with Metrobus and excited about its future expansion. Further analysis of the survey results promises to give greater insight to the role of BRT not only for Istanbul, but for other metropolitan areas considering implementation of a new BRT line or expansion.



Bus on Metrobus BRT in Istanbul approaching station

Authors' Acknowledgements: Gaining access to detailed information concerning Istanbul's Metrobus was greatly facilitated through the help of Mustafa Hatipoğlu, Deputy Director of the I.E.T.T.

Transport Innovator welcomes guest columns on any topic related to sustainable transportation. Submissions should be no more than 1-2 pages in length and may include graphic materials. Although we may edit for length and style, we will obtain the author's permission to publish edited columns. Please send all guest columns to info@gobrt.org.

BRT and Innovative Bus

Jacksonville, Florida: BRT best option for the city

In its recent newsletter, the Jacksonville Transportation Authority (JTA) provides a detailed explanation regarding its decision to pursue BRT over light rail. In short, JTA concluded that BRT could attract ridership comparable to LRT at a much lower cost. To complement BRT, JTA is still considering commuter rail, light rail and streetcars as part of its long-range, multi-modal transportation system.

	BRT	LRT
Total Capital Cost	\$388 - \$557 Million	\$974 Million - \$1.1 Billion
Cost Per Mile	\$11 - \$16 Million	\$22 - \$32 Million
Projected Daily Riders by Year 2020 (Weekday)	32,000 - 36,000	36,000 - 46,000

JTA cost and ridership comparison of BRT and rail for Jacksonville, Florida

Sources:
<http://www.jtafla.com/news/pdf/makingmoveswinter2007.pdf>
 and
http://www.jaxdailyrecord.com/s/howstory.php?Story_id=49076

Table:
<http://www.jtafla.com/news/pdf/makingmoveswinter2007.pdf>

Nashville, Tennessee: Bus ridership increases, BRT elements planned

Nashville-area bus ridership is growing (60% or more on several lines). To help address growing demand, Nashville's Metro Transit Authority (MTA) will implement BRT elements on the Gallatin line, the most popular bus route, and will purchase high-capacity articulated buses to serve the line. Additionally, a study of the heavily used travel corridor between Murfreesboro and Nashville has recommended BRT over rail, finding that rail would not carry enough riders to qualify for federal funding. MTA plans to implement the Murfreesboro BRT line gradually, starting with a bus-only lane down and signal priority.

Source: <http://www.dnj.com/apps/pbcs.dll/article?AID=/20071223/NEWS01/712230304/1002/rss>

Tehran, Iran: First BRT line inaugurated

Tehran's first BRT line was inaugurated in January 2008 to help alleviate the city's traffic congestion. The line has already reduced waiting times at bus stops, shortened the travel times and reduced the cost of urban trips. Additional BRT lines will be launched in the future, connecting all regions of the city, and higher capacity buses will be added. The BRT will be developed in parallel with new subway lines.

Source: <http://www.tehran.ir/Default.aspx?tabid=5215&ctl=Details&mid=22472&ItemID=23677>

Boston, Massachusetts: Silver Line reliability down/riders rate service OK

A new Massachusetts Bay Transportation Authority (MBTA) report indicates that service reliability declined in 2007 along the Washington Street segment of Boston's Silver Line BRT. While the BRT successfully delivers speedier travel times, buses have been noted to bunch (several buses arriving one after the other) resulting in a large service gap between buses and greater wait times for passengers. MBTA cites challenges to schedule compliance that include delivery trucks and double-parked cars blocking the marked bus lanes. MBTA plans to increase reliability by turning lights green when a bus is late or slowing buses that are ahead of schedule.



MBTA conducted a passenger survey along the Silver Line's Washington Street segment in October 2007. Forty-five percent of riders were satisfied with the service, of which 15% rated the service excellent and 30% rated the Silver Line average. Only 4% felt that the service was poor. Fifty-one percent of those surveyed did not respond, which MBTA believes indicates satisfaction or neutrality with the service.

Sources: <http://www.bostonnow.com/news/local/2008/02/13/silver-live-reliability-waning> and <http://www.bostonnow.com/news/local/2008/02/27/silver-line-gets-ok-grades>

Photo source: MBTA

San Bernardino, California: sbX BRT moving forward

San Bernardino's Omnitrans is planning a 16.5 mile BRT project, known as the sbX. The BRT will operate along high traffic roadways and could be used to spur redevelopment. The FTA has already approved plans for a dedicated bus lane along 55-60% of the route, but city officials would like to increase the amount of dedicated lanes to 80-90%. The project cost is estimated at \$165 million, with state and federal resources covering 74% of costs. Construction is anticipated to begin in late 2009 or early 2010.

Source: http://www.sbsun.com/sanbernardino/ci_8190399

New Delhi, India: BRT corridors on hold pending success of pilot line

Delhi's Chief Minister has placed six planned BRT corridors on hold until the city's pilot BRT corridor has successfully improved traffic flow and increased commuter convenience. The first corridor has been criticized for its "haphazard" construction and inconvenience to motorists. It is also being criticized as a threat to safety - four motorists have died in the last six months after striking the bus lane's divider.

Source:

http://timesofindia.indiatimes.com/Delhi/CM_halts_work_on_new_bus_corridors/articleshow/2793732.cms

Mexico City: RTP offers women-only buses



In January, Mexico City's Transit agency (RTP) introduced the Athena Program, a line of women-only buses. The service is being offered in response to physical and verbal harassment experienced by women on the city's public transport systems. Boys in primary or secondary school are also permitted on the buses when accompanying a female rider. Service is currently offered

along three routes, but will be expanded to fifteen routes later in the year. Mexico City's subway system already offers women and children-only cars.



Sources:

<http://apnews.myway.com/article/20080125/D8UCK48O1.html>,
<http://www.reuters.com/news/video?videoid=74801&feedType=VideoRSS&feedName=OddlyEnough> and
<http://www.freerepublic.com/focus/f-news/1957729/posts?page=4>

Photos: <http://www.rtp.gob.mx/atenea.html>

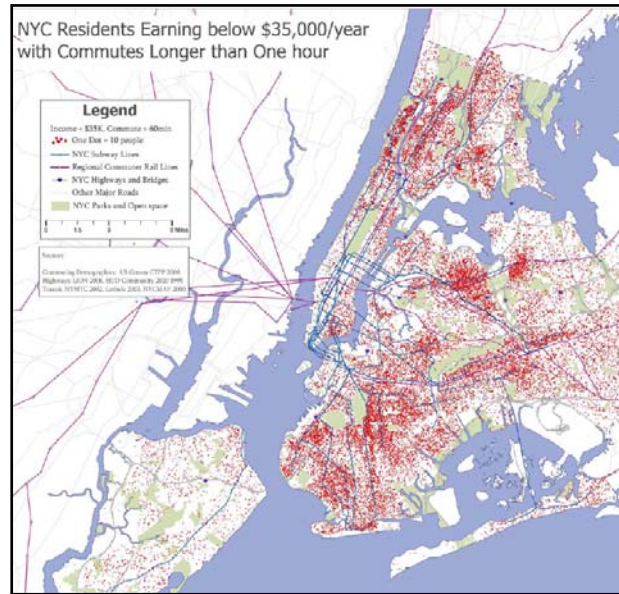
Belfast, Ireland: Bus drivers lobby for dedicated bus lanes

Bus drivers are planning a series of protests over the government's failure to introduce dedicated bus lanes as promised in Belfast. The drivers' union has called for dedicated bus lanes as a way to improve running times and the quality of service.

Source: http://news.bbc.co.uk/2/hi/uk_news/northern_ireland/7229228.stm

New York City: BRT promotes transport equity

Communities United for Transportation Equity (COMM.U.T.E.!) is campaigning to address inequities in commute times. Using census data, the group found that about 750,000 New Yorkers travel more than hour each way to work, and that two-thirds of these people earn less than \$35,000 a year. African-American New Yorkers have the longest commute times – 25% longer than white commuters – while Hispanic travel times are 12% longer. COMM.U.T.E.! believes that New York’s congestion pricing and BRT plans would benefit low income commuters.



Source: <http://www.prattcenter.net/transportationequity.php>

London, UK: Gas guzzlers to pay

London’s Mayor has announced a new plan to reduce carbon emissions - charging drivers of gas guzzling vehicles £25 (\$50) daily to enter central London. The plan is anticipated to raise \$60-\$100 million each year which will be used to introduce a bicycle-rental program similar to Paris’ successful Velib bicycling initiative. The gas-guzzler fee will be implemented in October 2008.

Source: <http://www.planetark.com/dailynewsstory.cfm/newsid/46909/story.htm>

Miami, Florida: Motorists to access busway?



Local agencies in Miami are studying ways to open the 20-mile Miami-Dade busway to high-occupancy vehicles. The dedicated roadway could be expanded from two to four lanes and the busway elevated over busy intersections. The managed toll plan would allow both buses and vehicles with three or more

occupants to enter the busway.

Source: http://www.miamiherald.com/news/miami_dade/story/414360.html
Photo: http://www.co.miami-dade.fl.us/transit/south_miamidade_busway.asp

Technology

Los Angeles, California: Largest solar panel installation at a transit facility

L.A.'s Metro recently unveiled the largest solar panel installation at a U.S. transit facility – a 487-kw solar system comprised of 1,632 individual solar panels. The installation is expected to generate 600,000 kW-hrs of electricity per year and provide an annual savings of \$200,000 in energy costs. The capital cost of \$4.2 million is funded in large part by grant incentives from the Los Angeles Department of Water and Power and Southern California Gas Co.

Source: http://www.metro.net/news_info/press/metro_220.htm

Photos: http://www.metro.net/news_info/press/metro_220.htm



Alternative Fuels

California: CALSTART and FTA partner for fuel cell bus projects

CALSTART and the Federal Transit Administration (FTA) have officially launched five fuel cell bus projects that were awarded \$12 million under the National Fuel Cell Bus Program. These projects will develop better fuel cell drives and components, including a fuel cell auxiliary power unit (APU) designed to double the fuel efficiency of a diesel hybrid bus. Project partners include several California transit agencies, fuel cell and drive system producers, and bus makers, who will provide an additional \$12 million in matching funds.

Source: http://www.calstart.org/aboutus/nl_detail.php?id=101

Norfolk, Sussex, Cambridgeshire, UK: Biodiesel buses quit in cold weather

Biodiesel fuel is turning waxy in sub-zero weather and clogging fuel lines, according to bus operator First Eastern Counties Buses. The company, which operates bus services in the UK counties of Norfolk, Sussex and Cambridgeshire, has reverted back to ultra low-sulfur diesel and is working with the biofuel manufacturer to develop an improved product that will withstand cold temperatures to -15°C (5°F).

Source: http://news.bbc.co.uk/2/hi/uk_news/england/7250962.stm

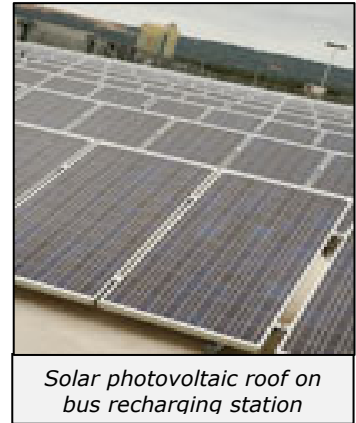
Adelaide, Australia: World's first solar-powered bus

The Adelaide City Council has introduced "the world's first 100% solar-powered electric bus." Called the Tindo, the electric bus can seat 27, carry up to 42 passengers, and is powered by 11 Zebra batteries that are recharged by solar power at the Adelaide Central Bus Station. The solar photovoltaic system on the station's roof is capable of producing about 70,000 kWh each year.



At peak performance, the bus uses up to 160

kW of electricity, pulled from its own solar roof panels and stored power from the solar station. The Tindo, which is Aboriginal for "Sun," is the result of an eight-year project that started with the Council promising the community a carbon-neutral transit option.



Sources:

http://www.adelaidecitycouncil.com/adccwr/publications/guides_factsheets/tindo_fact_sheet.pdf

http://www.adelaidecitycouncil.com/scripts/nc.dll?ADCC:STANDARD::pc=PC_151048

Photos:

http://www.adelaidecitycouncil.com/adccwr/publications/guides_factsheets/tindo_fact_sheet.pdf

North American hybrid bus orders grow

The North American hybrid bus fleet continues to grow, with major new orders announced in the last few months:

- GM-Allison will supply the hybrid drive for up to 952 diesel-hybrid buses to be purchased by the Washington, D.C. metro area transit agency.
- Community Transit in Washington state ordered 15 60-foot diesel-hybrid BRT vehicles with options for an additional 34 buses from New Flyer.
- OC Transpo in Ottawa has ordered 202 Orion diesel-hybrid buses from DaimlerChrysler. The buses will use BAE Systems' hybrid drive.
- Translink in Vancouver, B.C. ordered 141 hybrid buses from Nova Bus, a subsidiary of Volvo. GM-Allison will supply the hybrid system.
- San Diego ordered 12 35-ft buses equipped with ISE Corporation's gasoline-hybrid drive system.

Hybrid buses can significantly reduce fuel consumption and thus emissions as compared with conventional-drive vehicles.

Sources:

<https://www.newflyer.com/index/07-10-22-bus-orders>, <http://www.greencarcongress.com/2008/01/index.html> and http://www.isecorp.com/ise_news/ise_press_releases/jan-31-2008-SDMTS-gasoline-hybrids.php

Second generation Orion hybrid buses cost less, have lower fuel economy

A report by the US National Renewable Energy Laboratory (NREL) revealed that New York City's second generation hybrid buses had 6.8% lower fuel economy than the first generation of buses. The report speculates that this is the result of the engine used in the newer hybrids, which is equipped with emissions controls to meet more stringent NOX standards. The report also found that the newer buses' overall maintenance costs dropped by 39%, resulting in 24% reduction in cost-per-mile for the newer buses. The full report is available at:

http://www.nrel.gov/vehiclesandfuels/fleettest/publications_bus.html.

Source: <http://www.greencarcongress.com/2008/01/nrel-evaluation.html>

Odd News/ Bad Ideas

Beijing, China: Subway riders irked by ad promoting car use

New advertisements have appeared on the city's crowded subway, taunting passengers with the slogan: "Squeezed in?! Go and buy a car then!" The ad has triggered angry reactions from both passengers and the state newspaper. Beijing is encouraging transit ridership and is improving its bus and subway transit systems before the Olympic Games.

Source:

<http://www.reuters.com/article/oddlyEnoughNews/idUSN1556573220080215?feedType=RSS&feedName=oddlyEnoughNews>

India: "People's Car" – more congestion and pollution?



India's Tata Motors has introduced a \$2,500 vehicle dubbed the "People's Car". The new two-cylinder car features few amenities – just a single windshield wiper, a driver's side mirror and seat belts. Many are concerned that an influx of cheap cars into India will significantly impact traffic and emissions and will harm efforts to combat climate change. Ford and Nissan also plan to produce small,

inexpensive cars for the Indian market.

Sources: <http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=46318> and <http://www.msnbc.msn.com/id/22575262>

Photo: http://www.tatamotors.com/our_world/press_releases.php?ID=340&action=Pull