

HEADLIGHTS



HEADLIGHTS

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HEADLIGHTS editorial staff.

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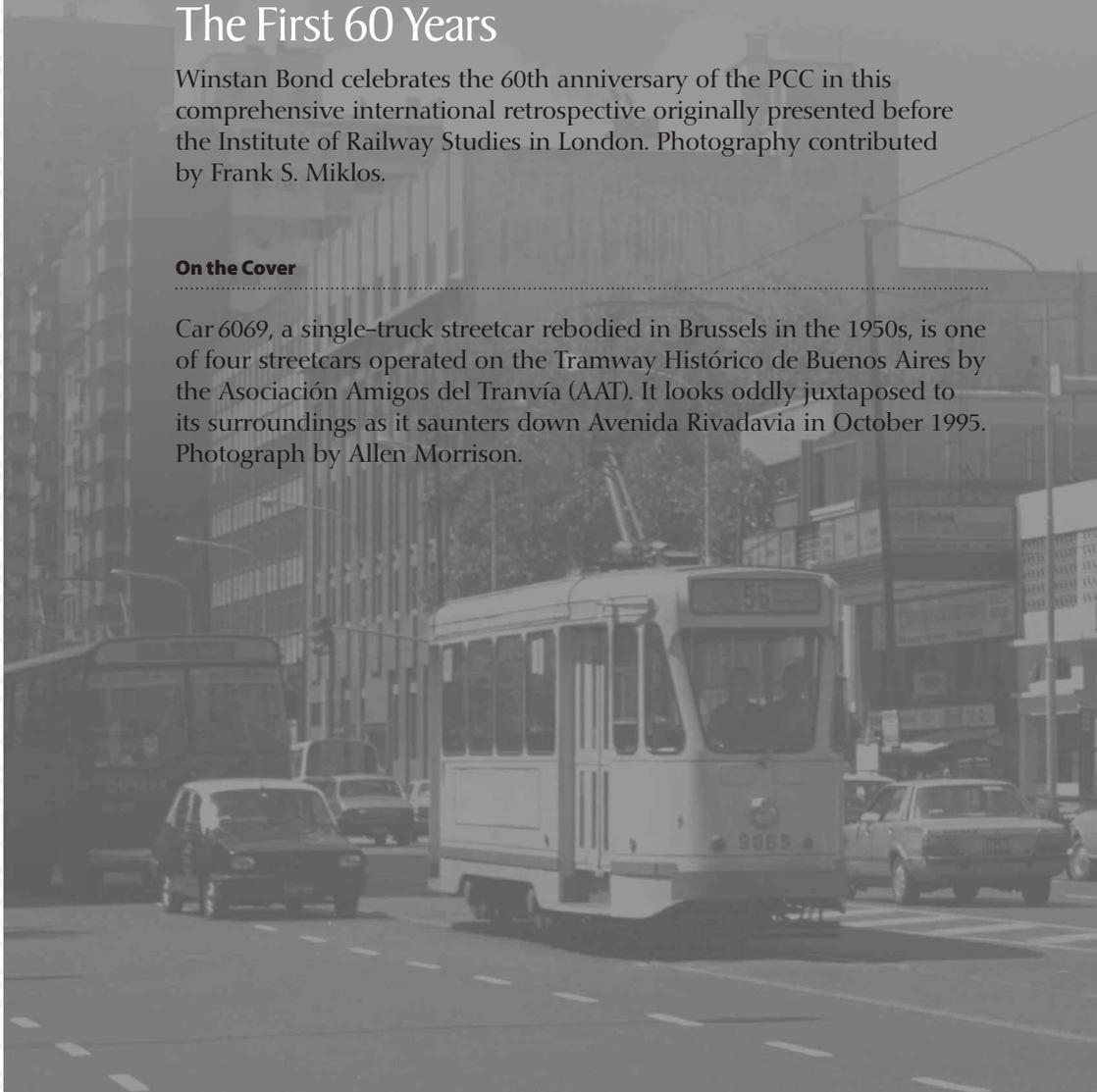
Bruce J. Russell presents a history of the Buenos Aires Tourist Trolley in
the third of a four-part series on rail service in Argentina. Photography
contributed by Allen Morrison.

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Winstan Bond celebrates the 60th anniversary of the PCC in this
comprehensive international retrospective originally presented before
the Institute of Railway Studies in London. Photography contributed
by Frank S. Miklos.

On the Cover

Car 6069, a single-truck streetcar rebodied in Brussels in the 1950s, is one
of four streetcars operated on the Tramway Histórico de Buenos Aires by
the Asociación Amigos del Tranvía (AAT). It looks oddly juxtaposed to
its surroundings as it saunters down Avenida Rivadavia in October 1995.
Photograph by Allen Morrison.



RAIL TRANSIT News

▼ A Siemens two-car train pauses for passengers on Sacramento's Watt I-80 line. This section of the system was constructed on a right-of-way that was originally earmarked for a freeway.

SACRAMENTO

Sacramento Regional Transit has begun work on its Mather Field extension of the Folsom Boulevard Line for two miles, and design work is to begin on the new South Line to Florin, initially six miles, and Elk Grove in the future, about 12 miles. Sacramento RT was serving 12 million passengers annually before light rail opened almost a decade

ST. LOUIS

The Federal Transit Administration concluded a Full Funding Agreement with Bi-State Development Agency to fund a voter approved 12.4-mile light rail line from East St. Louis to Belleville, Illinois, restoring the former East St. Louis & Suburban Railway service. Voters also approved extending the line eight more miles to Scott Air Force Base, but



FRANK S. MIKLOS

ago. Last year (FY 1996) ridership reached 25 million, almost double the pre-rail level. Revenue was sufficiently ahead of budget allowing fares to be reduced for the summer, stimulating still more patronage.

that segment must await further federal funding. The existing new line from East St. Louis to Lambert Airport is now carrying over 40,000 weekday passengers (12 million annually) for a North American record of 1,400 passengers per weekday per scheduled car, far in excess of New York City subway productivity.

SEATTLE

The voters in Seattle, King County, Pierce and Snohomish Counties in Washington approved a \$5.9 billion transit plan on November 5, 1996, by a 58% majority after failing to pass a larger plan last year. A 70-mile commuter rail line on BN trackage will be developed from Everett to Seattle and Tacoma, and a 12-mile light rail line will be built from Sea-Tac Airport through the south side of Seattle to the bus tunnel under downtown which already has tracks in the pavement. A subway will be built from downtown to Capitol Hill and the University of Washington, with an extension to North Gate promised if additional federal funds can be obtained. About 40,000 weekday light rail passengers are expected to be riding the system eighteen months after completion.

The voter approved funding will also provide suburb-to-suburb express bus service, east-west express bus service and bus ramps onto High Occupancy Vehicle (HOV) lanes on major freeways. Continued bus operation in the subway (bus tunnel) is in doubt for both safety and travel volume reasons. The hybrid trolley and diesel buses from Breda have not worked out too well, with high costs and low volumes of travel. With light rail, it is planned to open the facility seven days per week, and later into each evening.

WASH., D.C.

Arlington County, Virginia, has no light rail, but voters there recently voted 77% in favor of selling \$9 million more in MetroRail bonds to assist with completion of the 103-mile rapid transit system. Public support for rail transit has been very strong...as long as voters perceive a benefit. Blue sky projects, such as the costly Phoenix automated system, have been shot down in flames.

KENOSHA, WISC.

In conjunction with plans by civic leaders for a major redevelopment scheme along the Lake Michigan waterfront, the municipally-owned Kenosha Transit System has announced plans for a light rail line. The proposed line will link the downtown area – including the Transit Centre used by city, intercity and commuter buses and the METRA commuter rail line from Chicago – with the redevelopment area. Five PCC streetcars from Toronto have been acquired for this line. Construction is expected to commence in the spring of 1997 with operations to begin in early 1998.

Kenosha was served by the fabled North Shore Line interurbans between Chicago and Milwaukee until 1965. Streetcars last ran in Kenosha in the 1930s. ☺

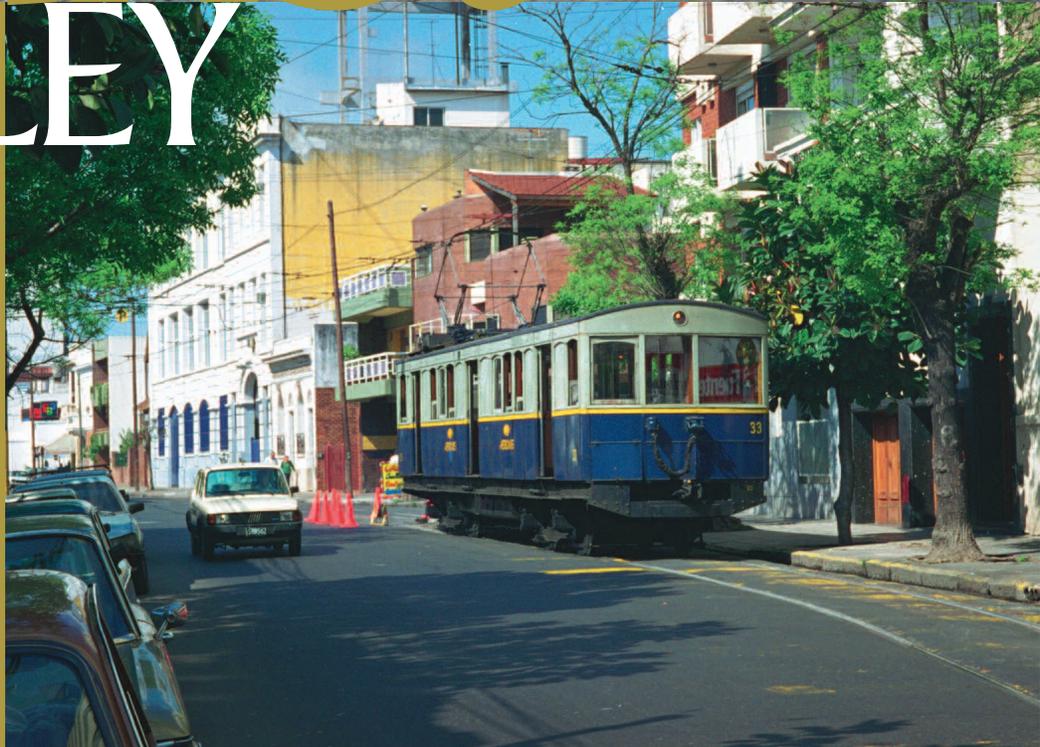
REPORTED BY E. L. TENNYSON
AND LARRY ELLIS REED
(WISCONSIN)



THE
BUENOS
AIRES

Tourist TROLLEY

FOCUS ON
ARGENTINA,
PART 3
BY BRUCE J.
RUSSELL



STREETCARS CEASED RUNNING in Buenos Aires in 1964 when the last suburban route shut down. The urban lines closed a year earlier following a gradual contraction of the system. Sadly, once the capital eliminated its trams the provincial cities such as Tucumán and La Plata followed suit. Argentina's last trams ran on Christmas, 1966, in La Plata, bringing to a close a fascinating era in public transportation.

At one time Buenos Aires had the third largest street railway system in South America, exceeded in size only by Rio de Janeiro and São Paulo. At its peak the Buenos Aires system boasted over 3,000 cars, mostly single truck. The

Philadelphia. His double-track, standard gauge line with 600 volt DC trolley wire used American-style wooden interurbans. These cars ran until about 1950 and were replaced by former Pacific Electric and Key System cars which have since been retired.

Lacroze originally intended to extend his suburban line into the commercial center of Buenos Aires via a tunnel. Although a tunnel was eventually dug, it became Line B of the municipal subway system. The line had no provision for through-running of suburban services and passengers had to change trains.

Ironically, the original concept is once more being given serious consid-

Polvorín Depot. (opposite page, top) Three of the four streetcars operated on the Tramway Histórico de Buenos Aires by the Asociación Amigos del Tranvía (AAT). Car 652 (unnumbered, left) and car 258 (middle) were purchased second-hand from Porto, Portugal. Car 652 has been decorated to resemble a vehicle of a Belgian tramway company that operated in the Argentine capital in the early 1900s. Car 9069 (right) came second-hand from Brussels, Belgium (an articulated streetcar of very similar appearance, Belgium PCC 7500, can be seen on page 14). It is more than 50 years old, but was rebodied by Brussels in the 1950s. Eighteen of the cars (including some that were not rebodied) were exported to South America in the early 1980s. All but car 9069 went to Asunción, Paraguay, where they ran until recently (only one has run since 1994). **ALLEN MORRISON**

Outer Limits. (opposite page, bottom) Between the tunnel portal at Primera Junta and Polvorín depot in Caballito subway trains run on city streets! This is one of the Belgian-built cars that still run on Buenos Aires subway route A. On weekends these tracks, which form a 12-block loop, are used by the tourist streetcar line. **ALLEN MORRISON**

Stately Procession. (left) A rare assemblage of historic streetcars along Calle Emilio Mitre awaiting a charter in October of 1995.



ALLEN MORRISON

"Paris of South America," as Buenos Aires was nicknamed, became a favorite of traction fans.

Horsecars began running in Buenos Aires in 1870 along several of the major European-style boulevards. In the late 1890s electrification of the routes began. By 1910 the system – which had expanded within the city and into the suburbs – was entirely electric.

In the early 1900s most of the lines were owned by British interests. American investors also had a financial stake in a few routes, but these were bought out by 1930. Another non-British operator of electric railways in Buenos Aires was Federico Lacroze, who operated several urban services to the city's largest cemetery. He also controlled the suburban line which became known as the Ferrocarril General Urquiza following nationalization in 1948. Instead of purchasing British-built rolling stock, he acquired cars from Brill of

eration. The third-rail electric multiple-unit (MU) cars which now run over the suburban trackage may be rerouted directly into the subway. Since privatization of Buenos Aires's public transportation five years ago, the same company now owns both lines. Provision of a no change, one seat journey will certainly boost patronage.

POPULATION GROWTH FOSTERS EXPANSION

Buenos Aires's population grew enormously between 1890 and 1930 with the arrival of immigrants from Italy, Spain, England and Germany. The need for good public transportation was paramount. New residential areas were rapidly being built and the electric trams were usually filled to capacity. New routes, plus extensions to existing ones, were placed in service.

In 1913 a subway was opened for

trams rather than full-size metro cars. Trams from the heaviest routes entered it and were able to make a quick trip downtown, similar to the streetcar subway in Boston. However, in 1920 it was converted into a regular heavy rail route and trams ceased using it. Over the years the rolling stock was extensively rebuilt; they survive today as the world's oldest metro cars.

Buenos Aires experimented with British-style double-deck trams, but they never found favor. Likewise, double-truck models weren't used either, except on a few lines which ran from the port area into the southern suburbs. Instead, the network consisted almost exclusively of two-axle, single-truck vehicles with trolley poles. Since most of the lines twisted and turned through narrow streets with tight clearances, single-truckers were viewed as

(continued on page 16)



PCCs OF THE WORLD 1936-1996

THE FIRST 60 YEARS 1996 marks the 60th anniversary of the inauguration of PCC car operation, a milestone that has gone largely unnoticed in the U.S. Considering the general historical interest in the vehicle, we felt a celebration of the PCC's colorful history throughout the world was in order.

The vehicle's story is not over, either. On-street PCC car service has resumed in the heart of San Francisco. PCC operation continues in Pittsburgh, Newark and Boston. And there is the prospect of new PCC operations (in whole or in part) in places such as Colorado Springs and New Orleans.

British electric railway historians and enthusiasts have always had strong admiration for the PCC car program, and the arrival of a PCC car for preservation – in conjunction with the arrival of this anniversary – inspired the creation of a comprehensive PCC exhibit at the National Tramway Museum in Crich, England, that is unlikely to ever be surpassed.

As an adjunct to this exhibition, Winstan Bond presented the following paper (originally entitled "A Streetcar Named Success: the PCC, a Product of American Research in the 1930s") before the Institute of Railway Studies in London. Because of its interesting perspective, we are pleased to reproduce it in *Headlights* as the ERA's acknowledgment of this significant anniversary.

Experimental. PCC 1000 was a one-of-a-kind experimental car built for Brooklyn by the Clark Equipment Co. It is shown in the post-war green and silver livery on a railfan excursion carrying a destination sign for the 1959 World's Fair. **SPRAGUE LIBRARY COLLECTION**

AS THE 1920S CLOSED, transit operators in North America ran over 60,000 streetcars on around 40,000 miles of track, carrying 15 billion passengers. 90% of all cities over 25,000 people had streetcar service. Sadly, despite its importance, the industry was blinded by the technical solutions of its past, aspiring to no more than evolution for its product and the adherence to distinctive local features and apparently not even suspecting the possibility of what we would now call 're-engineering'.

This self-defeating outlook was one reason for the then recently failed attempt by the U.S. transit industry to produce a standard streetcar. A graphic example was the operator who refused to accept slight differences between his specification and the standard, preferring to pay 15–20% more, with later delivery. Even if the committee's design had become accepted, evolution was no match for the motor car and



San Francisco

FRANK S. MIKLOS

motor bus which were winning the intellectual battle for the city street, compounding the industry's problem in raising credit.

The question of the relative role of the streetcar and bus was hotly debated.

For operators and banks, it was a serious question

how much of the 40,000 miles of track should be abandoned, with perhaps a massive write-off of capital, and how to re-laid? And, if re-laid, new streetcars would certainly



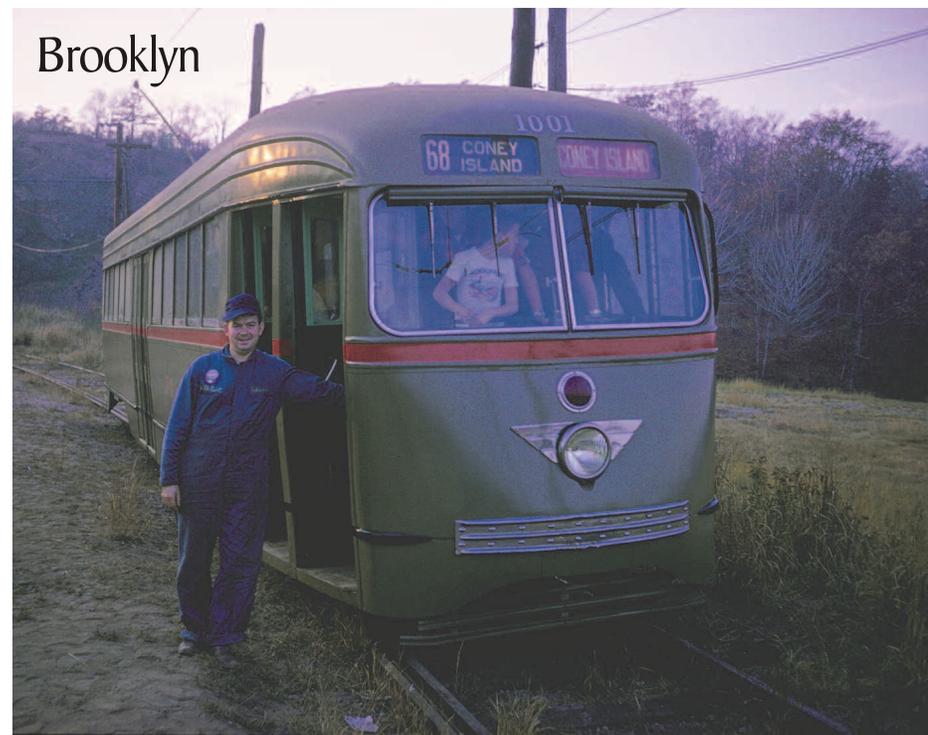
ARTHUR J. LONTO

be needed, vastly increasing the capital requirement. The average age of the 60,000 streetcars was 17 years, but orders for new equipment were running at less than 1000 a year, so great was the uncertainty and difficulty in obtaining capital.

The outcome of the gathering life and death battle was affected by a remarkable event in 1929. Streetcar operators, representing 30% of the industry and who had previously demanded streetcars built to their own design or heavily customized, agreed to fund an experimental research activity

First Production PCCs. (above left) America's first production order of PCCs went to Brooklyn. PCC 1001 is the first car of this order and is shown at the Branford Electric Railway Association's museum in Connecticut where it is preserved. **ARTHUR J. LONTO**

(left) Long time E.R.A. officer and former editor of *Headlights*, Arthur Lonto, left, poses next to Brooklyn PCC 1001 at the Branford Trolley Museum shortly after the car was refurbished in the early 1960s.



ARTHUR J. LONTO

Brooklyn

◀**Rare Double-ended PCCs.** (opposite page, top) Less than 100 double-ended PCCs were built for American transit systems. San Francisco purchased only 10 of them before acquiring single-ended cars. Car 1010 was recently refurbished and repainted into the blue and gold paint scheme that was adopted by the San Francisco Municipal Railway in the 1930s. It is shown at a photo stop on the J-Church line during the 1996 E.R.A. Convention.

◀**Last American PCC.** (opposite page, left) San Francisco car 1040 was the last American-built PCC. It was built by the St. Louis Car Company in 1952 and is shown leaving the loop at the Transbay Terminal.

so that “the present confusion with respect to the design of cars needed to meet the industry’s operating requirements could be eliminated.”

The committee was called the ‘Electric Railway Presidents’ Conference Committee’. It was chaired by the energetic and forceful Dr. Thomas Conway, a former professor of finance and now Chairman of the Cincinnati & Lake Erie and the Philadelphia & Western interurbans. In an age of streamlined trains and a wave of futuristic exhibitions, Dr. Conway captured the public mood by staging a race in 1930 between an airplane and one of his new interurban cars, the Cincinnati & Lake Erie ‘Red Devils’. At 97 mph, the Red Devil won! Conway followed this with his ‘Bullets’ for the Philadelphia & Western, based on Professor Pawlowski’s wind tunnel studies.

Conway’s awareness of the need to compete on all fronts with the automobile was apparent in 1925. When ordering new interurban cars for the Chicago, Aurora & Elgin, he had instigated research into the differences between automobile seats and the ones being proposed for his new cars, resulting in radical changes. Speaking in 1931, Conway summarized the basic choice, evolution or re-engineering, which his Committee had realized was before them. “Two courses of procedure were open to the Committee – the first was, by use of empirical methods



Philadelphia

FRANK S. MIKLOS

Mint Condition. (above) SEPTA PCC 2732 has been preserved for excursions on the Philadelphia trolley system. The silver roof and maroon striping are features that were found on these cars when they were delivered. These extra touches give this car a very attractive appearance.



FRANK S. MIKLOS

Newark Look. (left) Car 2728 is another PCC preserved by SEPTA for excursion service. The car sports a silver paint scheme that is intended to represent the paint scheme that was applied to Philadelphia’s original order of PCC cars. The car’s appearance, however, more closely resembles the colors that were once used on the PCCs in the Newark City Subway.

to endeavor to design a car which, from the viewpoint of the railway executive, is better than any car now available. The second method was to approach the task in a less spectacular but more thorough manner – to apply to this important technical problem the research method, which has produced such remarkable results in many other industries. The Committee unanimously chose the latter course, believing the chances of success were much greater if the scientific method of attack was employed.”

Eventually the Committee would embrace 28 operators, 25 manufacturers, employ 30 research workers and raise \$630,000 to create the PCC streetcar.

At the first full meeting of the Committee in May 1930, Conway said he considered the selection of the Chief Engineer to be one of the most important single decisions they would make.

Although the Committee agreed to cast a wide net in selecting its Chief Engineer, it is probable that Conway already had the successful candidate in mind. In rebuilding the Chicago, Aurora & Elgin in 1925, Conway had engaged Dr. C. F. Hirshfeld from Detroit Edison to advise on the power supply. Hirshfeld was a careful, methodical man. His ‘scientific approach’ was the antithesis of the mixture of ‘hit and miss’ and folklore which frequently guided the industry’s technical development. He knew little of street railways and carried no intellectual baggage. Equally as important, it is clear from the minutes of the Committee that Hirshfeld had a strong grasp of the political stratagems which he