Chicago Transit Authority General Operations Division

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## GOM 81-23

PCC Rapid Transit Cars

8/21/81 BGM

#### PCC RAPID TRANSIT CARS

#### 5000 Series

In 1947, the Chicago Transit Authority purchased most of the property and assets of the Chicago Rapid Transit Company as part of its plan to consolidate and coordinate local transit services in the Chicago area. The rolling stock acquired from the CRT consisted of over 1,700 cars, the majority of which were of wood construction, many with open platforms and considered obsolete.

Included among the relatively few all-metal cars were two three-section articulateds built by Pullman just before the takeover and numbered 5001-5002. In 1948, they were joined by two St. Louis products, 5003-5004. Constructed of aluminum alloy with curved sides, they utilized technology first developed for PCC streetcars by the Electric Railway Presidents' Conference Committee in the 1930's. These cars represented a dramatic change in car type for the rapid transit. Both groups employed different control systems, motors and other subsystems, and were purchased to determine the feasibility of using articulated cars on a large scale basis. No further articulated cars were purchased.

Following test runs over the system during 1947 and 1948, they were assigned to regular service. Over a two year period from 1964 to 1966, they were renumbered 51-54, equipped with pan trolleys, and placed in one-man operation on the Skokie Swift where their high capacity (96 seats) was put to good use. They are still in operation on this route.



Pullman-built car 51 (formerly 5001) in operation on the Skokie Swift, October 8, 1964.



Cars 6205-6206 are representative of the 520 6000's which were built using salvaged streetcar components.

### 6000 Series

Following the delivery of 5003-5004, the Authority placed an order with the St. Louis Car Co. for 130 lightweight alloy cars utilizing PCC technology. Although ordered as single units, this was changed to the now familiar marriedpair configuration, with an outside conductor's position, before construction began. These cars were delivered beginning in August, 1950, and were numbered 6001-6130. These cars differed in appearance from later orders by the use of dual headlights. These cars subsequently gained track brakes and inside conductor's positions. Most also had the dual headlights replaced by a single headlamp. An additional 70 cars were ordered in July, 1950.

To complete the modernization of the rapid transit system, an additional 570 cars were built using parts salvaged from the Authority's large fleet of Pullman and St. Louis-built PCC streetcars which were being phased out of service. The contracts for this conversion project were awarded to St. Louis who salvaged the trucks, motors, electrical components, as well as seats and other fixtures for reinstallation in a new body shell which closely resembled that of cars 6001-6200. Unlike the 6001-6200, the outside conductor's position was eliminated in favor of locating it within the cars.

The first 310 streetcars shipped to the St. Louis Car Co. originally had GE motors, but 288 of these were replaced with Westinghouse motors. All cars converted also received new Westinghouse-built accelerators. Ultimately, (from 1954 to 1959), 520 6000-series cars were constructed using salvaged parts.

#### 1-50 Series

Following the delivery of the last 6000-series car (6720) in 1959, St. Louis commenced delivery of 50 additional cars which were similar to the 6000's but built as single unit cars and designed for one-man operation. Designated as 1-50 series, these were the last cars built from salvaged streetcar components.

Cars 1-4 utilized salvaged body components only; experimental trucks, motors and electrical equipment being installed in place of their streetcar counterparts. The remaining 46 cars used salvaged trucks and motors.

In anticipation of the inauguration of one-man, single-car operation on the Evanston Branch on April 2, 1961, twelve of these cars (nos. 39-50), came equipped with trolley poles, to handle base and owl service. Later four additional cars (25-28) received poles. Following the conversion of the line to third rail in 1973, the poles were removed from most cars. Presently only cars 27, 28, 39 and 42 are equipped with poles. Single-car, one-man service on the Evanston route is currently provided during off-peak hours by cars 27, 28 and 31-50. With the opening of the Skokie Swift in 1964, cars 1-4 were equipped with "pan trolleys" to service the route which required an at-speed change between third rail and overhead trolley current collection. Others were subsequently equipped with pan trolleys for the service to meet growing ridership. An experimental pantograph was tried on car 4 and later on car 24 for a period of time. Cars 1-4 were later retired, service is presently being provided with cars 23-26, 29 and 30.

Those cars which were not needed for one-man service were kept paired in numerical sequence with the odd-numbered cars gaining an additional conductor's position to eliminate the need for the conductor to change cars to operate the doors in two-man train service to which they are assigned.



Car 1 was one of the four 1-50 series cars which opened Skokie Swift service in April 1964.

# Cars 6101-6102

By 1981, only cars 6101-6102 still retained their dual headlights, and though having received some modifications over the years, still approximated their original appearance. These cars have been repainted into their 1950's colors and are now designated as CTA's Rail Safety Train. This train is used in conjunction with other CTA efforts to promote safe work practices among employees. This train travels throughout the system to participate in safety award presentations and other appropriate activities. When not used in this capacity, it is assigned to revenue service on the Ravenswood route. Upon retirement, they will be made a part of CTA's historical collection of transit vehicles.



6101-6102 in revenue service on the Ravenswood route.