

THE NEW JERSEY HISTORIC BUS & COACH COLLECTION

Part One - Introduction to Bus and Coach Heritage

By S. David Phraner (09/02)

Why Buses?

Buses may not have the broad appeal of railroad locomotives, the sylvan beauty of canals nor the visceral excitement of passing steam trains, but they are essential to a full understanding surface transportation history. Friends of the New Jersey Railroad & Transportation Museum, Inc. ("Friends") is dedicated to preserving and interpreting that surface transportation history.....in New Jersey. We believe that "Friends" surface transport preservation obligation includes buses. Bus history is highly appropriate here in New Jersey. Of all the states, New Jersey played a most innovative role in the development of modern bus design and operating practice. Interpreting New Jersey bus and coach heritage is compelling nationally.

New Jersey is the corporate and archival home of the (National) Motor Bus Society (MBS). Their two professional-level research and news publications Motor Coach Age and Motor Coach Today, are published in New Jersey. MBS archives and library are here. Many of the leading bus researchers and practitioners reside in our state. In spite of its size, New Jersey has one of the most diverse and prolific bus operation centers in the nation. New Jersey is also one of the leading states in vintage coach and bus preservation, though Pennsylvania claims to be the home of the "national" bus museum (its collection is less than a quarter the size of New Jersey's). NJTransit and "Friends" have assembled one of the largest and most representative transit bus collections in the US. We think it's important to document American surface transport history, using New Jersey's bus and coach artifacts as interpretive tools. Write to NJ Transport Heritage editor or to Friends' PO Box 147, Phillipsburg, NJ 08865-0147, if you have comments on this series or wish to contribute additional research. MBS sources were used to prepare the series and the series will be continuously updated as the collection evolves.

The Story We Intend to Tell:

This article, originally appeared as a four-part series in Friends' bi-monthly periodical, NJ Transport Heritage, in response to requests to describe the historic bus collection preserved by NJ Transit and "Friends." To understand bus nomenclature used in describing the collection, the reader needs some background and context. A capsule history of bus design prefaces the detailing of the vintage bus roster. We show how our historic bus collection came to be formed. We tell of the hard decisions to cull and thin the original collection because of limited resources. The article starts by tracing the history of US bus invention. It describes a classification of bus types and to show how the collection represents vehicles most prevalent and characteristic of New Jersey. In the process we explain how NJ was a leader in bus industry growth and change.

Each vehicle in our current collection is briefly described. A summary inventory of the collection and a "search list" of vehicle "missing gaps" from a comprehensive bus collection concludes the article. Some of the buses on the search list are privately owned right here in New Jersey. Over a half-dozen vehicles on the search list have been acquired since the original series was published.

A Jersey Perspective on Bus History:

Public Service Coordinated Transport (PSCT), a predecessor of NJ Transit, statewide bus carrier, was one of the largest bus and streetcar operators in the world. PSCT influenced the design and use of buses simply because it was such a large consumer of the coach builder's products. While many of the streetcar enthusiasts today criticize the unwillingness of PSCT ("PS") executives to commit to modern street railway technology in the early 1930s, no one can deny, however, that PS was a bus innovator and New Jersey was the place it happened. Examples?....

- First (and nearly the only) operator of gas/electric/electric dual power "All-Service Vehicles" (ASVs). ASVs were essentially trolley coaches with off-wire capability. It took nearly a half-century for domestic use of dual power buses to return (in Seattle and proposed elsewhere).
- First North American testing and use of a practical production "oil"-electric (diesel) buses, with GMC/Yellow Coach.

- Innovator and refiner of the suburban and semi-suburban (or deluxe transit) bus type design. The first production suburban "fishbowl" bus, of thousands produced, was delivered to PS and is now in our collection (Public Service #P-700, an SDM-5301, serial #001).
- PS ordered the initial production run (serial #0001) of no less than 14 bus demonstrator models in the GMC and Mack catalog in four decades between the 1930s and 1960s.

How Buses Evolved in the US:

Aside early horse-drawn carriages, motor buses evolved from early stretched sedans and truck components. Jitneys competed with electric trolley cars that had earlier displaced cable, battery and horse drawn streetcars. These rail vehicles, in turn, had replaced horse-drawn charabancs, sleighs, or omnibuses. Light rail is now replacing high-density bus services completing a cycle of evolution from rail and back to rail. Like the automobiles from which they originated, jitneys and early buses had their engines mounted longitudinally in a hood that extended beyond the front of the passenger cabin. Front entrance doors were located behind the front wheels of the vehicle. The conventional bus power train was a non-synchromesh manual transmission with a drive shaft to a differential mounted on a rear axle. This basically describes the common contemporary school bus, indicating how far that type of vehicle has evolved.

In the late 1920's American bus design started to evolve away from the auto and truck configuration described above. Buses came in many forms as small bus builders designed their bodies to fit with several chassis and engine options produced by others. New Jersey hosted several of these bus chassis and body builders including Day-Elder, Paterson Vehicle Co., Backus, and Rehberger. Manufacturers that are commonly associated with automobile production made buses including Studebaker, Packard, Pierce-Arrow and Dodge/Fargo. Truck specialists, including Mack, Garford, Federal, Brockway, Sterling, Graham, Reo and White, also produced bus models. Body and chassis builders like White and Bender were frequently paired to produce a marketable coach.

Bus Design & Application Comes of Age:

During the 1920s, Twin Coach produced the first practical flat front buses with the front door forward of the front axle and the engine amidships. Fageol patented the "safety coach." Electric "transmissions" were applied to transit buses because a practical heavy-duty "no-shift" automatic had not yet been perfected. In New Jersey, PS operated over a thousand electric drive buses in the three decades up to World War II.

Bus design branched into two types, the "parlor coach" for longer distance, intercity trips and the "transit bus" for short distance multi-stop intra-city transit routes. Initially, the parlor and transit type vehicles were similar, but as these evolved, the two designs diverged and became more specialized.

Bus Innovations of the Thirties:

If the 1920's defined types of buses, then the 1930's produced the greatest innovation and variation in bus engineering and design. The decade of the thirties spawned the "oil" (diesel) engine adaptation to buses. The hydraulic automatic transmission followed. The rear or "pusher" engine placement and drive train, transversely mounted engines and "v" drives combined power and drivetrain innovation. Air conditioning and improved ventilation increased passenger amenity. In a throwback to the jitney era, cheap affordable buses returned to replace marginal streetcar lines. Luggage stowage moved from the roof to inside or under the floor. Construction changed from body-on-chassis, composite wood and steel to all-steel and ultimately to monocoque (unit body/stressed skin) of steel or aluminum by the late '30s.

Our collection has examples of the above (Somerset's Ford #9082, Holloways' Beaver #50, and several early 1950s GMC buses), but regrettably, only one bus of 1930s vintage (PSCT Yellow Coach #5496). After rationing of strategic materials, buses reverted to thin-gauge stamped and riveted steel construction for a short period before commercial bus production was discontinued during a portion of the World War II period.

Post War Bus Industry:

Transit ridership dramatically declined after the war as affordable cars and housing became widely available. Bus production boomed momentarily however, to compensate for lack of bus production during the war and because buses were substituted for streetcars. The unhappy trolley enthusiasts and many transit professionals called large-scale replacements of trolleys by buses "bustitutions" or "motorizations."

Bus design between the late thirties and late fifties is now termed the "Old Look" era. The most popular post-war standard became a rear engine diesel of 30', 35' or 40' length. General Motors Truck and Coach dominated the market eventually driving small companies like, Ford and Checker (yes, they made more than taxis) Transit, Reo, Beaver (we have one sample!), Fitzjohn, Aerocoach, Garwood, and Beck, out of business. Larger manufacturers who specialized in buses also were pressed by GMC. These included ACF-Brill, Flxible, and Fageol-Twin Coach. Even thriving commercial vehicle manufacturers like White, Kenworth, Superior and Mack (the latter with a large NJ presence) discontinued bus and coach production. We have a Mack "old look" in the collection (North Blvd. #B-125)!

Two significant changes in bus design occurred in the 1950's. Buses grew larger. Forty feet became the standard rather than thirty-five feet in NJ. A hybrid was evolving in NJ and elsewhere called the "suburban" type.

Public Service and NJ independent companies like DeCamp, and Short Line recognized that transit buses in longer suburban to city trips were unsatisfactory for their passengers, and bus carriers. In the transit bus models, some seats were longitudinal and cramped. All were low back and non-reclining. Standee windows were an unnecessary expense. Two-speed automatic bus transmissions of the day could not attain highway speeds. There was no place to stow brief cases except on laps. Reading was difficult with area lighting. Transit buses were also noncompetitive in medium distance charter service, a profitable complementary business for bus operators in non-peak hours. Parlor type coaches (like our Asbury Park - NY Transit #125) were selected by some suburban commuter carriers, but a new bus type was needed and it evolved in New Jersey

Working with other carriers and GMC, Public Service helped to develop a suburban model built on the transit design, sharing most transit components, but offering greater comfort and amenity. The new "suburban" had one single stream door (most transit buses had two), larger windows, individual reading lights, under-floor luggage compartments and interior parcel racks, 4-speed manual transmissions, all forward-facing, reclining, upholstered seats, and higher floors built on platforms to permit under floor storage. Air conditioning was available on all but the earliest suburban type coaches.

Other refinements in design were applied to both transit and suburban models. The first of the 40' suburban GMC "old look" models came in 1953. Only 15 TDM-5107s were built, *all going to NJ operators* with the first ten going to PS (their F-700 series). Our collection's PSCT # M-720, a 1958 model TDM-5108 is similar in appearance, the major difference being the air ride bellows replacing steel spring suspension on the earlier F series.

A semi-suburban or deluxe transit type preceded the suburban type in the old look era. These vehicles retained the standee windows of the transit bus and had a mixture of seating types, but with manual transmissions and one-door features of the suburban type coaches. PSCT chose not to air-condition its shorter distance services, so transit buses were not air conditioned until the very end of PS's dominion. Our collection has two generations (new and old look) of suburban, semi-suburban and transit models in both 35' and 40' lengths.

Parlor buses were also undergoing change in the mid fifties. The famous Greyhound Scenicruiser (GMC model PD-4501) and a 35' single deck version were extremely popular. PS bought the 35' model single deck model (designated PD-4104) one of which is a restored member of our collection (#L-627). It replaced the PD-4103 model (our ex-Asbury Park-NY Transit #125).

Bus Refinements of The Sixties:

For lack of a better term this might be called the "fishbowl era" or "new look" of bus design. "Fishbowl" applies to the convex shape of the large 6-piece windshield found in GMC new looks, and applies somewhat less to Flxible "new looks." Again New Jersey and Public Service were in the forefront of innovation. PS got the first ever, production suburban model of this popular and familiar bus. We have it in our collection (PS # SDM-5301, serial 001). The collection also includes examples of GMC and Flxible "fishbowls" in 35' and 40' lengths and in transit, semi-suburban and full suburban configurations. More about this and other bus nomenclature later.

GMC, AM General and Flxible were the only competitive transit bus manufacturers remaining domestically by the 1960's. Eagle and GMC dominated the parlor bus market, but two Canadian manufacturers, Motor Coach Industries (MCI) and Prevost Bus and Car (say "Preevoh") were beginning to erode the intercity/parlor bus market share enjoyed by GMC and Eagle. In less than two decades, MCI and Prevost would dominate the market. Later, European coach makers like Neoplan, Setra, and VanHool would invade the North American domestic coach market. GMC and Eagle offerings would disappear. We have GMC and MCI coaches in 35' and 40' lengths in our collection.

Bus and Coach 1980's and Beyond:

In 1970, in an attempt to develop a national standard transit bus design, UMTA (now Federal Transit Administration) initiated a competition among the three extant major bus manufacturers for a new generation of transit

buses. This initiative was called the "Transbus." None of the three prototype vehicles types built were successful, being too complicated to be practical. Two of the three manufacturers (GMC and Rohr, later Flxible) refined and simplified their prototype Transbus designs to become "Advanced Design Bus" or ADB. GMC produced its ADB as the "RTS" model. No New Jersey operators bought the initial GMC RTS models. The improved RTS however, represents a recent order of transit buses for NJ Transit. After over 20 years, their manufacturer Canadian Nova Bus has announced end of production. A contemporary Nova RTS (#2600 series) is on our search list to represent the last of the ADBs.

Rohr sold Flxible to Grumman, another aerospace company. Their ADB, the "model 870" and later "Metro" predominated the 1980s New Jersey Transit bus fleet. Original AM General, GMC and Flxible ADB designs were structurally flawed, but eventually fixed. In a highly publicized action, New York City Transit Authority got rid of all their new Flxible ADBs. NJ Transit purchased them at discount. With Grumman factory remedies, these buses ran an additional 15-20 years! We have two of these former NYCTA buses (unconverted #1596, and converted #1009).

THE NEW JERSEY HISTORIC BUS & COACH COLLECTION

Part Two - Bus and Coach Classification and Nomenclature

by S. David Phraner (10/02)

Summarizing, in Part One of this four-part series, we traced the history of buses with emphasis on New Jersey bus innovation. We paused in the history in the 1980's, because that time represents the newest buses in our present collection. In Part Two, we will describe the physical features that distinguish bus models and how they are designated. We have also received some comments on Part One that we are responding to in Parts Two, Three and Four. One reader stated that what we called "semi-suburban type buses were called "deluxe transit" by Public Service. He also stated that Greyhound Scenicruisers are not particularly significant to New Jersey because they didn't conform to NJPUC specifications and therefore they couldn't make stops in New Jersey (but they did run here).

Bus Nomenclature:

Why is nomenclature important? Most bus nomenclature is very descriptive of the variations in bus model design. Understand bus nomenclature and you can picture the bus in your mind. In the late '30s, GMC Truck and Coach Corp. developed a simple system for classifying their bus models that was to last for three decades. Arguably, it surpassed the rationale of their EMD division's designation for GM railroad locomotives (why wasn't there an SD-19 or 21? What's the rationale for GP-39 or 59 designations... the 12-cylinder versions of GP-40 or GP-60 models.)

Prior to 1940, GMC and its predecessor Yellow Coach had a three digit model designation which was non-descriptive and seemed random. Friends' little Yellow Coach model 733 bus is the only example in our collection. Just before the war however, GMC/Yellow devised a more descriptive system to designate its bus and coach models.

Since our bus collection is nearly 80% GMC and since New Jersey was predominantly GMC we will briefly explain the GMC system. The first letter of the model number denotes the type of bus: "T" for transit, "S" for suburban and "P" for parlor or intercity.

The second letter denoted the engine type: "G" for gas and "D" for diesel. GMC never officially marketed propane or after the 1940's, trolley coach electric propulsion. In GMC's one post-war venture into dual power buses, Public Service #D900 had a hydraulic 2-speed automatic transmission, trolley poles, traction motors and controls, but it was designated by GMC simply "TDH-4509" just like its conventional brethren without trolley poles and electric power. It was designed to replace streetcars on the surface and in the Newark City Subway (PCC cars came instead).

Later when GMC stopped making gas transit buses, the second letter in the designation became numbers to designate the number of cylinders (6 or 8) for transit diesels. For example, TDH became T6H or T8H in the first four digits of GMC's transit bus nomenclature.

The third letter symbolized the transmission type: "M" for manual, "H" for hydraulic automatic and "E" for electric (which was very seldom used since electric transmissions were on the decline as this nomenclature was introduced). Some war years Yellow and GMC buses did not use the third or transmission letter designation. For a period after the war and up to the mid 50's, the last digit for parlor buses sometimes denoted whether the bus model was a Greyhound standard or a separate model for independent operators. GMC for decades enjoyed a near exclusive arrangement to design and build special purpose long distance buses for Greyhound. All parlor buses at that time featured manual transmissions, so the third letter could be used for other descriptions. A PDG-3701 was a Greyhound model exclusively while a PDA-3701 was a different model of the same size, but produced for independent bus operators in the intercity business. Later GMC dropped the third (type operator) digit as it became superfluous.

The first two of the last four numeral digits in the system was the seated capacity and therefore inferred length) and the last two digits was the model generation or sequence. Like EMD locomotives, GMC occasionally

skipped a sequence number or numbered a non-production experimental bus. There were TDH-4505 thru 4512 models and 4514 through 4515 but never a TDH-4513. Perhaps a corporate superstition was the cause?

Three or four digits followed the model designation that was the sequence of production or serial number. As air-conditioning became an option, another digit was added with "A" for air conditioning and "N" for non-a/c. "N" was seldom used.

Consider a little test of the system and your powers of comprehension... What's an S8M-5303A? How about a TDH-4507?...the latter is a 45-(seated) passenger/35', transit type bus with a diesel engine and hydraulic transmission. A 4507 is the 7th generation of that bus model. Coincidentally, it was produced in 1947-'48. Some, but not all transit model number last two digits being odd or even designated the two industry standard bus widths, 95"/96" narrow or 101"-102" wide. In a few instances, the GMC numbering system defied consistency and the bus width designation is a good example. "Old Look" 35 footers were narrow (95") up to model TDH-4509. TDH-4510 and 4511 were wide (101"). "New Look" fishbowl 35 footers started with TDH-4516 which was wide (102"). The even numbered 35' "New Look" transit buses were wide and the odd numbers up to TDH-4523 were narrow (96"). In contrast, the wide 40-foot Old and New Look transits were odd numbered (TDH/M-5103, 05, TDH 5301, 03, 05) except for TDH-5001 and 5101 which were narrow! The narrow 40-foot Old Looks were even numbered, TDH/M-5102, 04, 06. TDM/H 5107 and 5108 were most of our collection covers, only our post-1980 buses are 102 wide. A small additional clue for bus detecting is that a manual transmission in a transit bus usually indicates that the vehicle is a deluxe transit or semi-suburban type (one-door and some high back seats with overhead luggage racks). Even PSCT had an exception to this.

Other bus manufacturers patterned their bus model designations similar to GMC, except that they were not as consistent and changed more frequently. Some were too complex to decipher except for the most ardent bus enthusiast. Flxible's system was complex but improved over time. Our Flxible model 870s are designated "40102T" or 40'x102". Mack's system was simple. Our only Mack is a C-45DT (city service, 45-passenger, diesel, transit).

All of the model designations are shown in the collection roster to enable you to picture the vehicles just from reading the descriptions.

Public Service Bus Fleet Numbering System:

Overlaid on GMC's model designation was a very logical system for fleet numbering buses that was developed by PSCT after World War II. PS employed alpha-numeric bus numbering to avoid duplicating numbers or adopting a five-digit system for its very large bus and trolley fleet. Letter prefixes indicated the year of manufacture starting with "A" in 1947. "B" would follow in 1948 and so on. A three-digit fleet number followed the letter. PS left out "O" and "I" letter prefixes as they could be mistaken for numbers. By 1968, PS had worked all the way through the alphabet to "Z" prefixes (like our #Z-546 and #Z-603). Since all the 1947 A--- buses had been retired by that time, PS could have started all over again without duplicate fleet numbers for active buses. Instead, they used *suffixes* ending with "A". The last prefix bus was #Z-619 (we have sister bus #Z603 in the collection, a 1968 PD-4903, serial 089). The first PS bus using a suffix fleet number was a 1969 T6H-5306, serial 208 numbered 300A (deaccessioned from the collection).

PS also cleverly numbered their buses by type. For example, generally within a series 100s were 32 passenger transits. 200s were 36 passenger transits. 300-400's were 45-53 passenger transits, 500s were "semi-suburbans," often called "deluxe transits." 600s were parlor types and 700-800s were suburban types. A-900s were unusual (for PS) ACF-Brill C-44 suburban types. Other 900 series were intended, but never used for post-war dual power (ASV) like the experimental #D-900. It was the only bus purchased in 1950, hence the only "D" prefix bus ever on the PS roster.

Understanding all of this numbering reveals a lot about a bus. Let's take our ex-Public Service bus from the collection; #P700, its builders plate shows it as model SDM-5301 serial 001. The fleet number tells us that this is a (700) suburban type bus, purchased in (P) 1960. The model number confirms a "S" suburban type, "D" diesel engine, "M" manual 4-speed transmission, carrying capacity up to 53 seated passengers (actually PS put only 49 seats in these vehicles), it may be inferred that the bus is 40' long. It is the first generation (01) of this series (which happens to be a "fishbowl" or "New Look") and it is the first (001) production bus of this model series.

The New Jersey Bus Collection:

The core of our initial collection came mostly from two sources, a private collection that was being liquidated and visionary NJ Transit staff who set aside certain bus models in hopes that the means would some day exist to preserve them as a formal state collection. Later, "Friends" added its collection, from donations and purchases from a variety of sources. It also helped starting a New Jersey Transportation Heritage Center to protect the collection.

In other major cities, several large urban transit companies had undertaken to set aside and preserve representative vehicles from their active roster of transit rolling stock. Chicago, Baltimore, Seattle, Calgary and San Francisco to name a few, have fine collections representing the growth and importance of street transit to their cities.

Public Service Coordinated Transport (PSCT) and its predecessors, in spite their wealth and influence, as corporate policy, never preserved one item of its rolling stock roster, which numbered in the thousands! This deprived New Jersey of its legacy of transit innovation and compelled private individuals and organizations with limited resources to attempt to preserve New Jersey's streetcar and motor coach heritage.

There was a railroad equivalent of this situation. It is shown in the difference between the Pennsylvania Railroad and the New York Central. The PRR accumulated a splendid collection of cars, and locomotives that formed the basis for today's Pennsylvania State railroad collection in Strasburg. The B&O did the same for Maryland and Baltimore..... New York Central saved nothing, hence no official state collection exists for it's namesake New York.

The original NJ bus collection totaled almost 25 vehicles. Those acquired from the private bus collection were either damaged, vandalized or in advanced state of deterioration. Some duplicate model buses were included to serve as a source of parts for sister vehicles to be restored. Several buses were in restorable, though hardly pristine condition. Some were interesting curiosities, but had no relevance to New Jersey or its surroundings. One such bus was a rusted hulk that was once a Berlin, Gemany double-deck built by B + ssing.

Two buses in the collection were adopted by NJ Transit facility staffs and restored; 1957 parlor PD-4104 # L627 and 1951 transit, TDH-4509 #E313. Trenton Garage restored #E313. Under the direction of the then executive director of NJ Transit, Thomas Gagliano (earlier, a state Senator and the first state Museum Study Commission Chairman), L627 was restored by NJT Newark Shops as a VIP coach using parts from another deaccessioned 4104 cannibalized to save its sister.

First Crisis in the Bus Collection:

The bus collection was about to be evicted in 1990. NJ Transit staff, who were knowledgeable in bus technology and history (also members of the Motor Bus Society and "Friends") were asked to recommend reducing the size of the collection because of the amount of space it occupied and redundancy. The vintage bus collection was to be displaced from their temporary quarters in a former toy factory that was to be converted to new bus overhaul and repair shops for NJ Transit. If all this sounds familiar, it's a true replay of interim preservation of the vintage railroad rolling stock equivalent... spending money moving equipment and finding places to store and restore rolling stock until a secure and permanent heritage center site was found. Throughout all of these travails, NJ Transit headquarters and bus executive staff have been supportive.

The selection of buses to eliminate was difficult to make, but ultimately about ten units were recommended for removal from the collection. The bus collection was reduced, and those removed from the collection were advertised for sale. Unfortunately, the winning (and only) bidder was a salvage yard owner who scrapped them.

Meanwhile, Friends' director Bill McKelvey spearheaded a campaign to save and restore a bus that would represent 1930 bus technology in New Jersey. "Friends," through Bill's generosity, acquired Lancaster (Ohio) Transit #1, a 1937 Yellow Coach model 733. The story of this bus, now numbered 5496, is a surrogate for the over 400 model 733s once owned by Public Service (none of which survived), is described below.

The current status of the 30-plus vehicle collection is that half of the units are operable or stored serviceable. Nine of the remaining 14 vehicles have been awarded a TEA-21 Enhancement grant for rehabilitation to museum-quality exhibits. #9082, #5496, #L627, and #E313 have been used in special events and parades. #204, #205, #125, #1596, #1009, #2478, #6106, #5039, #J411 and #Z546 are also driveable. #G572, #7126, #7375, #2505, and #1448 are stored serviceable. Numbers E313 and L627 are assigned to garages that "adopted" them. Others may be adopted by their former "home" garages. Two service trucks, a wrecker and a stake truck are considered part of the bus and coach collection. Six vintage trucks are also preserved, but are not considered part of the bus and coach collection

How the Collection is Organized:

The NJ bus and coach collection spans four eras and six decades in transit bus evolution:

- "ADB" Advanced Design Bus (1980-2000 [five buses, two coaches],
- "New Look" Fishbowl (1960-1985) [seven buses, two coaches],
- "Old Look" (1940-1959 [nine buses, two coaches, one service truck],
- "Pre-Old Look" (1930-1946) [two buses, one service truck].

Representatives of additional eras are needed for addition to our collection as follows: early '30s or late '20s vintage engine-in-front bus or coach such as that portrayed in the current "Friends" logo and post-ADB examples such as MCI, Volvo articulated, RTS and Eagle. NJ Transit employees decided that they would not support preserving an Eagle, so this unique to New Jersey coach was not officially preserved and it was removed from the search list. These gaps in the collection are identified by type or model numbers. They appear in a search list at the conclusion of this article with the vintage bus collection roster. This listing appears at the conclusion of this article. Note that even now, the New Jersey collection attempts to represent each of the eras or bus design generations with an attempt to interpret the first and last models within each era to show model evolution. Various manufacturers are represented, though GMC predominates, as it did in New Jersey.

In the next of this series of four parts on the New Jersey historic bus collection, we will describe each item in the collection and dwell briefly on a search list of proposed acquisitions to round out the collection.

THE NEW JERSEY HISTORIC BUS & COACH COLLECTION

Part Three - Description of the Vintage Fleet

By S. David Phraner (10/02)

In this, the third in the series, we describe the physical characteristics of each bus and coach in the collection. We will identify its significance to New Jersey and American public transportation on streets, in general. We will also describe the search list for buses that are missing from what could be a truly representative New Jersey (and national) collection. Finally we will describe one more element of street transit that is part of the collection, though possessed by others... New Jersey streetcars held by Friends, affiliate organizations and nearby collections. Because the streetcar story requires its own space and there is exciting, breaking news to share, this will be a separate article to appear in a future issue of [NJ Transport Heritage](#).

Earlier, we referred to these vehicles as "bus" or as "coach." For purposes of this article, a "bus" is a street transit passenger conveyance, while a "coach" is a premium model or "parlor" passenger vehicle for over-the-road, intercity passenger functions.

These listings originally appeared in ascending order of age, youngest first. That order continues except for buses that have been added to the collection subsequently between 1996 and year 2000. Please refer to Part Two (above) of this series to help in understanding of the fleet numbering and nomenclature that follows below:

Collection Description:

By way of review and as described earlier, our transit bus collection is divided into four overlapping epochs commonly expressed in North American bus history literature: "ADB" (1980-2000), "New Look" (1960-1985), Post war or "Old Look" (1940-1960), and the Pre-"Old Look" (pre-1946).

A fully representative collection could eventually include the contemporary overseas influence (1990-2000 and beyond) and earlier 1920s front engine designs and finally, pre-bus sedans, jitneys and truck adaptations of the first two decades of the twentieth century. The collection's parlor buses and service vehicles are not considered among the transit bus epochs listed above. Another coach, former PSCT #Y604 (serial #884), a rare coach for PSCT, model PD-4107 (body shell only), is not described. Not officially part of the collection, it will be deaccessioned.

Public Service Coordinated Transport #Z603, 1968, PD-4903, serial # 078

The fourth bus in the first of three orders by PS for this model bus, Z-600s were the first 40' parlor coach series owned by the company. Z603 was among a 10-bus order (Z600-Z609, serials 075-084). All subsequent orders, including an additional ten 4903s, ordered by PS in 1968 specified 46 seats with lavatories while this initial order was for 49 seats without lavatory. The distinguishing feature of this coach is near full-length deck-an-a-half seating platform in the coach. This gave a commanding view for passengers and allowed for profitable longer distance charter work requiring large under floor baggage. As a publicly-owned carrier, NJ Transit was later prohibited by the Federal Transit Administration from competing with private operators in the lucrative charter trade, the business for which this coach was designed.

Z600s were also the first PS coaches using an optional retractable tag or third axle required in some states at the time for 40' coaches. This wheel set was concealed behind stainless steel access doors on both rear sides of the coach. In two-axle coaches of this model, the last hatch door accessed additional under floor baggage space. This series coach was the last intercity parlor coach that GMC was to produce before exiting the business. It represents the very last order (the near identical PD-4905 600C-609C was last production order) for any bus or coach that PS was to make before it transitioned to Transport of NJ and eventually, state ownership.

Public Service Coordinated Transport #W608, 1965, PD-4106. serial #3129

By the mid-1960s, the 35' intercity or "parlor" coach was becoming obsolete and being replaced with the 40' coach. #W608 was one of PS' last 35' single deck parlor types and was part of an order of five coaches (W605-W609, serials 3126-3120) with 38 seats and a lavatory. PS also ordered five other 4106s in 1965 (without lavatory) and the usual 41 seats for this model. This was the last of production *single deck* 35' coaches ordered by PS. One additional small order of 35' coaches followed for five GMC PD 4107 (Y600-Y604) with "deck-and-a-half" configuration in 1967. Intercity/Maplewood Equipment Co. (MEC) also had a few 4106s and 07s. The W600s were also the last PS coach to feature drumhead type signs on the rear engine cover panel. These 35' coaches were considered high performance with Detroit Diesel (DD) 8V-71 engines, usually designated for 40' buses and coaches. DD nomenclature is easy to comprehend; "8" for number of cylinders, "V" for V configuration of the cylinders in the engine block, and "71" for the cubic inch displacement per each cylinder.

Westwood Transportation Company (Casser Group). #248, 1965 SDM-4502 serial # 087

Relatively rare in New Jersey, but not uncommon elsewhere, the 35', 42-45 seat GMC "new look" suburban was never ordered by Public Service. Most other NJ operators seldom bought them, favoring the larger more productive 40', 49 to 53-seat versions. Westwood Transportation, a subsidiary of the family-owned Casser Group (including Westwood, Manhattan, Lincoln, and Mohawk) was an exception with a few of these 35' fishbowls. #248 came to us from a collector who had obtained the bus from Monroe County (Stroudsburg, PA) Transit Authority, its second owner. This bus is equipped with a 6V-71 and a 4-speed manual transmission. Its suburban configuration enabled it to be used for short-haul charter work. Its reduced capacity relative to the 53 passenger buses made it less popular and therefore the 41-45 passenger 35' suburban fishbowls never advanced beyond the second 4502 generation.

Public Service Coordinated Transport #P700, 1960 SDM-5301 serial # 001

Arguably, the most significant bus in our collection, this vehicle is sought after by private collectors. P700 is the first production new look, 40' suburban fishbowl ever built! It is first in a generation, first in a series and first of a major redesign that typically lasted 20 years or more. As the first production model, P-700 was subject to retrofits and service bulletin fixes to remedy structural weaknesses in early production models. Its engine compartment rear panel and some other appliances are not original. Unlike later suburban models in some Public Service R, W and later series having V8s, this bus has a 6V-71 and 4-speed manual transmission. Its air-conditioning unit compressor works directly off the engine, reducing power on hills on hot days. This bus has a distinguishing hump or nacelle above the rear window for the air conditioning evaporator. We are aware of only one operator in NJ who initially ordered this and subsequent suburban models *without* air conditioning. PS specified 49 rather than 53 seats, as did most Jersey bus operators. These buses were used on short-haul charters and featured reclining seats, individual reading lights, luggage racks and under floor luggage compartments. This was considered a highly successful model, but in its early PS versions, it was under powered. PS received 120 of these buses in their first order (P700-P819) but were unable to get 120 consecutive units directly off the production line (serials 001-100, 200-219). PS purchased 240 SDM-5301s or 41% of GMC's total production of 589 units of this model. Public Service was to purchase over 560 suburban "new look" buses. Over a thousand operated in NJ. An identical SDM-5301, but painted Red and Tan Lines (serial #166) is preserved in a private collection. In a refined version called "The Classic," the "new look" bus was still produced in Canada into the 1990s, nearly 40 years after its introduction.

Public Service Coordinated Transport #M720, 1958 TDM-5108 serial # 296

If P-700 was the first of the 40' "new look" suburban types then M720's significance was its status among the last of the 40' "old look" suburban type buses whose design had originated in 1940! PS rostered two basic versions of this bus with, and without factory installed air conditioning. Both of variants featured a Detroit Diesel (DD) series 6-71 (6 cylinder straight block with 71 cubic inches per cylinder), 4-speed manual transmission, 51 seats on interior platforms and some under floor luggage. As originally equipped, the first order (M700-M767, serials 276-305,261-275, 306-328) had no factory installed air conditioning. Forty more TDM 5108s ordered by PS in 1958 arrived from GMC with integral air conditioning compressors and evaporator units installed in a nacelle above the rear window. The a/c unit in the later order was powered directly from the engine resulting in lethargic performance. In 1962, PS retrofitted M720 and her 67 sisters in the first order with separate air conditioning units powered by an auxiliary small engine mounted below the floor. This was a more reliable arrangement than the integrated a/c as long as the small auxiliary engine was kept fueled. The driver could start and shut down the auxiliary from his seat. Even though these were suburban buses adapted from transit models, the "S" designation had not yet been adopted by GMC till "New Look" arrived, hence M720 is a *TDM-5108*.

Public Service Coordinated Transport #L627, 1957 PD-4104 serial # 2281

As its high production serial number indicates, 1957 was nearing the last production for this very popular model 35' intercity coach. This coach was part of a 1957 order for 49 coaches. PS ordered fifteen PD-4104s (G600-G619) in 1953, the first year of its production. PS ordered 4 more in 1955 (J639-J641) and then a final order for 49 in 1957. Like later GMC model 41-seat series parlor coaches, PS specified rear emergency doors, which usually distinguish this model as a New Jersey bus. All the buses described in our collection were equipped with pivoting "crowd gates," another unique NJ feature required by the State Public Utilities Commission, Motor Carrier Bureau (PUC), then responsible for regulating the bus industry in NJ. The crowd gate is a stainless steel tube bent in the shape of a "D" to the right rear of the driver. The crowd gate was interlocked with the front doors, closing and preventing passengers from intruding forward of the white line on the floor of each NJ registered bus. L627 was restored as a VIP coach using parts from a sister (L619) PD-4104 (the shell of which was subsequently sold for scrap). Greyhound owned hundreds of PD-4104s as did independent bus operators. The 4104 was the first GMC new model bus extensively shared between Greyhound and independents. The Scenicruiser was exclusively a Greyhound GMC design until they were sold on the second-hand bus market.

Public Service Coordinated Transport #K702, 1956 TDM-5106 serial # 018

#K702 is the third 40' transit bus ordered by PSCT, sister K700 being the first. #K702 is an "old look" sample of the semi-suburban or deluxe transit type bus, featuring single door, mix of forward facing and transverse seats and "stick shift." Our collection's "new look" or fishbowl equivalent of #K702 is #Z546, purchased 12 years later to replace buses like the K series. Yes, its 700 series fleet number violates the rule that reserved the 700 block of numbers for full suburban configurations. PS reordered this GMC 40' x 96" or TDM-5106 model in 1957 and 1958 as their "L" and "M" fleet series. PSCT's TDM 5106s totaled 85 units, which were 77% of GMC's total production run for the model. This is yet another proof of the influence of PSCT and how this model typifies NJ bus operations. In contrast GMC produced 1,727 of the full transit version TDH-5106 of which PS ordered only 60. The TDM-5106s would be used in such routes as the #70 Newark-Morristown, a heavy local, stop and go route that was medium distance with some higher suburban speed requirements. They featured longitudinal seats in the front, mounted above the wheel wells, manual transmission, some luggage racks in rear and transit-type standee windows. As its nomenclature betrays, this is basically a transit coach mildly converted for medium distance, local and highway bus routes. This type bus emerged from the New Jersey experience and this bus typifies the genre. The K700-K724 series (serial #016-040) is the first 40-foot semi-suburban or "deluxe transit" bus order by Public Service Coordinated Transport. K-702 was sold through a bus broker to Holyoke (MA) and then resold back to a New Jersey collector prior to it entering the collection.

Intercity Transportation Company (Richmond Group) #743, 1956 TDM-4515, serial # 230

743 is basically the 35' version of the 40' M720 above. It represents a very common suburban bus that evolved from transit bus design. A full suburban, the TDM-4515 features one-door, manual transmission (some DeCamp and Red & Tan suburbans had automatics but of a total production run of 452 buses, only 40 were automatics), under floor baggage, luggage racks high back forward facing seats, reading lights and large windows. It was powered by a DD 6-71 and was the first suburban featuring air ride rather than steel spring suspension. Nearly all suburban bus operators had these reliable buses. PS had two orders before standardizing on the 40' model. #743 was purchased new by Intercity Transportation Co., a Richmond family - owned operation in Passaic, Bergen, Sussex, Rockland and the Catskills Counties. This bus along with two sister 4515s were taken over from Intercity by Maplewood Equipment Co. (MEC) as successor to the Intercity, Orange and Black and Somerset family-owned (Richmond, Engelhardt and Noll Families') bus operations. It was then leased to Passaic Athenia Bus Company as MEC #8394. MEC and Transport of New Jersey combined to become NJ Transit Bus Operations, Inc. Intercity operating affiliates included Northeast Transportation, Mountain (Catskills) Coaches, and Lake Region Transportation.

Public Service Coordinated Transport #K339, 1956 TDH-4512 serial #1440: #J411, 1955 TDH-4512 serial #1165

These are two buses are nearly identical, built only a year apart, are 35' two-door transits with 2-speed automatic transmissions and a mixture of longitudinal and transverse seating. They feature air ride suspension, introduced three years prior. Our #G572 was one of the first New Jersey buses with air ride. G572 shares the same transit body shell as K339 and J411, but otherwise differs with its single door, deluxe seating, and manual transmission. K339's high serial number indicates that this was a very common and popular bus across the US. It is one of the most popular bus models of all time and the most prevalent GMC 35' "old look" design with over 3,250 units produced between 1953 and 1958. K339 will be used as parts for J411.

Public Service Coordinated Transport #T-776, 1938 Mack Service Truck, model #__, serial #__

This heavy-duty (for its time) truck is typical of non-revenue service vehicle used in support of bus and streetcar transit. It is a cab-over-engine configuration with a flat stake body on a two-axle body. It is gasoline fueled. We are researching its service assignments and details of its design. It was assigned to the Newark Plank Road shops as late as the 1970s. Its number assignment predates the post war use of the T-700 series for 1963 SDM-5301 buses.

Capital (Trenton) Transit #__, 194_, Walters "Snowfighter" Service Truck, model #__, serial #__

This is a heavy-duty truck in common use by transit operators and public works departments. National Railway Historical Society "Horseshoe Curve Chapter" has preserved one of these vehicles with a dump body of similar vintage, as the only surviving rolling stock of the Altoona & Logan Valley St. Railway. Our truck is gas-fueled with a service truck body featuring built-in steel tool cabinets, a winch and stationary gantry that serves as a hoist in combination with the winch. As its name implies, it was common to mount a snow plow on these trucks. It was probably assigned to Lalor St. Garage in Trenton originally. Research on the provenance of this vehicle continues.

THE NEW JERSEY HISTORIC BUS & COACH COLLECTION

Part Four - Description of the Vintage Fleet (continued)

By S. David Phraner (10/22/02)

Public Service Coordinated Transport , #E313 1951 TDH 4509 serial # 1901

TDH 4509, #313 is the spring suspension version of the K339/TDH 4512 described in Part Three above. These Two buses appear outwardly identical to those unfamiliar with the details of bus design. There are refinements in the design, window sash, ventilation and suspension systems that make both bus models worthy additions to our collection. #E313 was purchased new by PS, but later was operated by Mercer Metro in Trenton, NJ and was painted in the Trenton paint scheme as their fleet # 920. It has been restored to its original 1951 PS paint scheme and number. It is in running condition and has been adopted by Hamilton/Mercer Garage staff as their restoration and mascot project. #E313 is a model project for other NJT garages to emulate. The E300s have one other dubious distinction... they replaced trolley cars on Public Service Route 29 "Broomfield Ave." in 1952.

An earlier single bus order of the TDH-4509, the D900 was an experimental "All Service Vehicle" (ASV) that was used in experiments with trolley bus wires and poles on Bloomfield Ave. Imagine this bus with poles and you see the D-900. PS ordered 100 of these 4509s as the first 35', 45-seat transit buses (C300-C399) in 1949. Prior to 1949, PS was required by the NJPUC to order 33' 40 passenger transit buses as its largest transit buses. The TDH-4509s also represented a mid-generation design change of GMC between the 1940-1948 squared single sash and the 1949-1959 more rounded and paired sash window arrangement. Bus fans distinguished these as "squaries" and "pairies." #E313, in spite of its number, is a lucky bus, surviving all its sisters. It usually is on display at Hoboken Festival arriving under its own power. It is currently stored serviceable at Hamilton Garage of NJ Transit.

Holloways Bus Service Inc. #50, 1953 Beaver B35PT, serial # 953

This bus, perhaps more than any other in the collection, typifies the small, privately owned, independent bus operator, carving out a small niche in New Jersey's bus market. Holloways Bus Service provided charter and possibly school service. It was sold to Haddon Heights Township for its transit service in the Haddonfield area of South Jersey. An article in [NJ Transport Heritage](#), Vol. 5, No. 1, Feb. 1996 featured this bus. Only three Beavers are known to survive, the others being privately held in Pennsylvania. This is the one door transit version. It has a gasoline engine as many small manufacturers installed these in their products. Beaver Manufacturing Co. did not survive the 1950s. Even Beaver's single manufacturing plant near Pittsburgh was flood inundated and few traces of it exist.

North Boulevard Bus Owners Assoc. Inc. #B139 1951 Mack C-45DT, serial # 4755

Mack is an essential part of our collection because, after GMC, Mack was among the most popular and representative bus manufacturers on the streets of NJ. Mack is also representative of NJ bus industry because it manufactured bus and truck components in its Plainfield, NJ plant. Currently, B-139 is painted in 1960 vintage NY City Transit Authority colors for its role in movies. Its owner following a movie shoot abandoned it. #B139 has 45 seats in a transit configuration over its 35' length. North Blvd. IBOA (independent bus owners association) was an association of former jitney operators. Each bus was assigned a number based on its PUC certificate number. When a new bus was purchased, it inherited the number of its predecessor. B-139 was therefore used on several generations of buses on the Boulevard. The Mack C-45DT's "old look" competitor was GMC's TDH-4509, like our ex-PS E313.

Public Service Coordinated Transport #5496, 1937 Yellow Coach model 733, serial # 943

Clearly a centerpiece of our collection, we have written in NJ Transport Heritage, Vol. 4, No. 4, Sept, 1995 about this bus, as this was Friends' first rolling stock acquisition and its first successful restoration. #5496 is not authentic to New Jersey but the model 733 was very common to New Jersey. All 395 Yellow Coach model 733 buses once owned by Public Service were scrapped. The 733 was a small (23.5') gasoline engine (Chevrolet straight six) bus, popular with the independent bus operators and major transit carriers in NJ. To our knowledge, no native NJ model 733s survived, so Friends had to search elsewhere. This bus was acquired from the John Eagle collection by Bill Lawson, president of DeLuxe Stages, Jackson, MI. We learned that Lawson was disposing of his bus collection and had three 733s from Lancaster, Ohio. Bill McKelvey, on behalf of Friends, purchased Lancaster Transit #1, one of the two 1937 model 733s in the collection. It was transported east in March, 1991. It was decided to restore the bus to Public Service paint scheme as the 733s were delivered. The next empty number in the series was #5496, so we adopted that number for our new acquisition. In addition to the purchase price, the restoration was directed, executed and financed by "Capt." Bill with the help and assistance of numerous Friends' members and organizations.

The official PS series for 733s was 5100-5495, (including 5 acquired by Suburban Bus Co.). Yellow Coach designed this lightweight (6,500 lbs.), 21-passenger model specifically for PS. More 733s were sold than any other Yellow model during the late 1930's. The PS 733 series was purchased between 1936 and 1938 at a cost of from \$3,000 to \$3,575 each. They were used primarily in Camden, Essex, Hudson, Middlesex, Morris, Passaic, and Union counties. The PS units had a manual door opener that required the driver to reach down on his left side to operate the door lever. Our bus was equipped with a vacuum operated door. Brakes were of a vacuum assisted hydraulic type. Drivers called them the "Mickey Mouse" bus, and complained that the "Chevies" had no power. They called them other names when the jumped out of gear when going over a railroad grade crossing or hitting a pot hole. The gear shift lever is mounted behind and to the right of the driver! Many of the PS fleet ended their service as cinder vehicles. Their rear panels were removed and in winter, a worker shoveled grit out onto the street along bus routes.

The model 733 was significant in US transit history because it was one of the first Yellow Coach models in the economy transit field. It was used extensively to replace marginal streetcar lines. It is significant to our collection because so many operated in New Jersey by a variety of operators. It is the oldest bus currently in our collection and older than any railroad locomotive in the URHS collection as of the year 2002. Presently, 5496 is stored serviceable indoors, needs some mechanical and body work, but it is otherwise operable.

New Additions to the NJ Collection Subsequent to the Official 1996 Roster (above):

Public Service Coordinated Transport #G-572, 1953 GMC TDM-4512, serial # 061

G-572 was Friends' third bus acquisition. It came to the collection through a donation by the Washam and Dolan families in 1999 after eight years of static storage outside. It had been professionally converted to an RV configuration, complete with shower, bed, stove and refrigerator. During the conversion process, the original PSCT 1960s paint scheme was retained. It was towed from Budd Lake to Friends' interim storage location at Boonton, where it was cosmetically restored by director, Dave Phraner. Director Jason Wechsler provided mechanical assistance. Ultimately, it will be restored to its original deluxe transit interior arrangement if appropriate seats and interior fittings can be obtained. It is included in the TEA-21 Enhancement award.

This GMC model is typical of the New Jersey semi-suburban or "deluxe transit" type bus. We had sought this or similar models on Friends' previous vintage bus search list. This 35' bus features a manual 4-speed non-synchromesh "v" drive transmission, a single door with transit forward and more deluxe forward facing seating in the rear. While most common in the Southern Division operating out of the Newton Ave. Garage in Camden., G-572 spent most of its life assigned to the Elizabeth Garage on the #62 Perth Amboy - Newark or the #134 New Brunswick - Newark routes. As delivered, G-572 wore the post-war gray and off white with purple belt rail stripe and red wheel paint scheme. Interior was dark green below the windows with cream homosote as the headliner. In January 1965, G572 was repainted to the blue and white stripe PSCT paint scheme that was supposed to match the "silverside" feature of later series old look and new look (fishbowl) buses. In 1970, G572 was assigned to the inactive reserve fleet. By October 1973, at age 20, it had been removed from the official PSCT roster and sold.

Public Service's G-500 series bridged two GMC models. The lower number G500-G517 were TDM-4509, while the later 1953 delivered G518-G561 were TDM-4512. These latter buses were serial #001-044, reflecting Public Service influence in getting the first of unique new series models. Still later in 1953, G562-585, including our G572, were delivered to Newark from Pontiac MI. These last vehicles in the series came with lower density (41 rather than 45 seats) and deluxe upholstery. The principal difference in these outwardly similar appearing two models was that the later 4512s had air suspension while the 4509s were spring suspension equipped. Public Service purchased 82% or 208 of the total GMC production of 252 buses in the TDM-4512 series. After 1956 model year, PSCT preferred the 40' 51-

passenger semi-suburban model typified by our ex-PS K702 (TDM-5106). G572 was trailered to Lakewood for secure interim storage.

Public Service Coordinated Transport #Z-546, 1968 GMC T6M-5306N, serial # 047

This "new look" or fishbowl bus was Friends' second bus acquisition. Three Friends' directors purchased and donated it to the collection in operating condition. It came from Chet Furmanek, charter bus operator (Central Jersey Bus) and collector of vintage buses. Furmanek advertised the sale of eight buses in the collection including the famous "Peaches" bus featured in the Tom Hanks movie "A (women's baseball) League of Their Own." Z-546 was among them. We would have liked to purchase others including an ex-Somerset TDM-5108 and an ex-Red & Tan SDM-5301 in fine condition. Both were subsequently sold. "Peaches" was sold overseas.

#Z-546 is significant as it represents the new look semi suburban so typical of New Jersey, but rare elsewhere. Its rarity and New Jersey uniqueness is demonstrated in that it is the forty-seventh of only fifty model T6M5307N semi-suburban transit buses ever produced. All of this model were ordered by Public Service. It features a Detroit Diesel 2-stroke 6V-71 engine mated with a 4-speed non-synchromesh v-drive transmission. The bus was delivered without factory air conditioning. The next series of this type bus (the PSCT 500A series) came with factory integral air. This and the 300A series buses were retrofitted with an under-floor mounted air conditioning unit powered by and independent 4-cylinder diesel. Ductwork was installed along the left interior headliner of the bus. The first cross seat on the right side of the bus was rendered nearly unusable by a steel box structure intruding above the floor of the bus to house the a/c engine and compressor below. The retrofit was successful and the little diesel unit turns over with its electric start. While Z-746 spent its service life assigned to the Newton Ave. and Maple Shade (the latter now demolished) Garages, it is now equipped with a Bergen County front sign curtain and a post-PATCO Camden side sign curtain. As delivered the G546 was painted PSCT's typical medium blue and off white roof and stainless steel fluted side panels. Later it was painted all white with the NJ Transit diagonal three color band. Z-546 was towed to Lakewood for storage, but it is operable and complete, even including its NCR fare register and sign curtains.

NJDOT/Transport of New Jersey #7375, 1976 Flxible 45102-6-1, serial #61551

Part of the New Jersey State's historic first purchase of transit buses, #7375 was part of the 35' fishbowl order, all Flxibles. Flxible transit buses in the NJDOT order also were delivered in 30' 35' and 40' lengths in both one and two door configurations. The order is significant because it signaled the first acknowledgment by the state for responsibility to fund the state's bus capital needs program for Transport of New Jersey and the private bus operators.

This is a one-door version with standee windows and is in all other respects, a transit type bus. It is a 45 passenger, 102" wide bus equipped with a Detroit Diesel 6V71 series and 3-speed automatic transmission. Many of these buses were leased to private operators. #7375 was leased initially to Trackless Transit and was operated on their number 94 and 96 routes between Linden and Bloomfield. It was later leased to Community Bus and finally to HAML Corp., a subsidiary of Suburban Bus Corp. operating the Rutgers University Shuttle. The collection has few 35' buses and only two Flxible fishbowl or "new look" types buses. It was withdrawn from the auction list is currently stored at Ferry St. It is possibly the last of the 35' buses in the historic NJDOT order of 1976.

NJDOT/Transport of New Jersey #7126, 1976 Flxible 53102-8-1, serial #61368

Also part of the historic NJDOT 1976 bus order, #7126 is of 40'x102" dimensions with two doors in a typical transit configuration. Flxibles were also delivered to New Jersey DOT in suburban one-door, automatic transmission, 8-V71 engine, versions with all forward facing high back seats. Mechanically, this bus is nearly identical to the suburban version, differing in gear ratios, seating and standee windows. As delivered, these buses had white roofs, stainless steel fluted side panels and a dark blue belt rail stripe rising diagonally across the parallelogram slant-shaped window line to the roof at the front quarter panel of the bus. Transport of New Jersey was spelled out at the belt line.

Buses leased to the independent operators differed only in the color of the paint stripe (green, light blue, orange, or red instead of dark blue) and the name of the operator. #7126 operated for Transport of New Jersey, then NJ Transit. The Number 22-Hillside Bus Corporation (between Hoboken and North Bergen) also operated it. 22-Hillside is an affiliate with Academy Bus Co. developed by the Tedesco family. This bus is the only 40' transit non-GMC vehicle in the collection.

NJ Transit #1009, 1981 Grumman Flxible 870-40102-6T serial #93838

While this and other buses among over 1,000 in the New Jersey Flxible 870 and Metro family appear to be very similar, there are subtle but important differences in design and history of each bus that distinguish the five members of this ADB series in our collection. #1009 was among the first of the NJ Transit order of ADB generation of buses purchased by the Port Authority of New York and NJ (PA) on behalf of both New York and New Jersey. The

PA purchased and leased over 2,000 buses of various types to New York City and New Jersey bus operators during 1980-1982. NJ Transit and NYCTA/MABSTOA (New York City Transit Authority and Manhattan & Bronx Surface Transit Operating Authority) obtained the most.

In an innovative financial arrangement, the equity in the PA's buses value was used as a 20% match for Federal Transit grants (including purchasing rail equipment). As delivered, all the Port Authority owned and leased buses had "PA" prefixes added to their fleet numbers. #1009 (former #PA1009) is the ninth of the series. After the expiration of the PA lease, NJ Transit took direct title to the buses and the PA prefix was dropped from fleet number. The "class" bus #PA1000 was too heavily stripped and damaged at the time of its retirement to recover for the collection. This was among the first Grumman Flxible buses ordered new for New Jersey. Its popularity resulted in many subsequent orders totaling hundreds of buses. It may have influenced NJ Transit to venture with Grumman Flxible on the purchase and retrofit of over 700 former NYCTA Grumman Flxible 870s with defective trunions A-frames. It features 47 seats in a transit configuration and two doors. The ADB generation buses marked the transition from the Detroit 71 series engine to the 92 series. With larger displacement per cylinder and turbo charging, V6 cylinder engines in the 92 (for displacement per cylinder) series outperformed the older 71 series V-8 diesels. Before retirement, #1009 was operated by Orange-Newark-Elizabeth (ONE) Bus.

NJ Transit #1596, 1980 Grumman Flxible 870-40102-6-1 serial #92057

Part of a massive and controversial transfer of over 500 buses from NYCTA to NJ Transit, #1596 was one of a 700 bus NYCTA/MABSTOA fleet. #1596 was within a special category of the former New York City fleet. The most common category of former "TA" buses is represented by our collection's ex-NJ Transit #2478 and #2505 (NJT 2000-2510 series). These were high mileage city transit buses used rigorously on NYCTA and MABSTOA Manhattan, Bronx, and Brooklyn bus routes. These buses were the first to exhibit cracks in their frames. As a result they were extensively rebuilt and re-equipped inside, leaving little trace of their original New York City heritage. Our ex-NJT #1596 however, was part of another NYCTA/MABSTOA specification. Originally numbered NYCTA #401, it was part of 59 buses in the "TA" 393-452 fleet number series (serials 92049-92108). It was equipped with attractive deluxe two-toned blue seating and used on Staten Island express routes, making as few as two round trips per day. As such #1596 had relatively low mileage and therefore exhibited less critical structural flaws than the earlier buses in intensive city street (i.e.: pothole) service. A less comprehensive rebuild was required. It's interior therefore, was spared a major reconstruction. As a result we have a bus in the collection that appears as NJ Transit on the outside and as New York City Transit Authority on the inside. Before being retired, #1596 was operated by NJT in Egg Harbor Township as part of the former Atlantic City Transit bus route system. Its frequent NJT driver was Friends member Bob Wasche. Upon withdrawal from service and consignment to the auction lot, #1596 was destined for the salvage dealer. A friend of Bob's placed a bid for the bus and was awarded highest bid for Bob's favorite NJT bus. Bob obtained the bus, donated it to Friends and then paid to have the bus towed to the Lakewood interim vintage bus storage facility. #1596 runs very well, but needs some cosmetic work. During the decommissioning in preparation for the bus auction, the NJT stripes and logos were carelessly painted over with yellow paint applied with a roller. The resulting exterior appearance is now very unattractive, but #1596 is complete, is in good condition inside, is mechanically very sound and runs well. We are appreciative of Bob Wasche's donation.

NJ Transit #2478, 1983 Flxible Metro

See #1596 above and #1448 below

NJ Transit #2505, 1983 Flxible Metro

See #1596 above and #1448 below

NJ Transit #1448, 1983 Flxible Metro serial # 95189

Among the first of the improved second generation Flxible ADBs, 1448 represents a refinement and correction of the earlier design flaws. Grumman had subsequently gotten out of the bus business and Flxible, alone continued to manufacture buses. NJT subsequently reordered hundreds of Flxibles when awarded by low bid. Some, like #1448, were leased to private carriers. 1448 was formerly operated by Hudson Bus Transportation (Jersey City) and most recently operated by HAML Corporation in the Rutgers Campus shuttle service in New Brunswick.

Somerset Bus #9082, 1946 Ford Transit 69-B, serial #770015

This bus demonstrates a long history of varied ownership. It represents a very popular pre and post war small, cheap bus purchased by large and small operators. The Ford came originally with a flat head, 239 cubic inch displacement V-8 used in the Ford/Mercury automotive product line. Though it worked fine in the automobile, the heavier bus and the rigors of stop and go driving was hard on the engine. A heavy duty in line 6-cylinder engine that generated more torque was substituted and as a result many sixes were substituted for V-8s. Public Service operated

hundreds of Fords, but they did not last long and were retired early (for buses). Independent operators such as Somerset Noll Corporation used these buses on local routes in New Jersey.

Following retirement from Somerset, #9282 was purchased by Michael DeCorso d.b.a. Summit New Providence Bus Line. DeCorso was noted for his excellent maintenance. Several of his buses were sought after by collectors at the close of his operation. NJDOT purchased the bus to demonstrate the "before" in a before/after example of how bus service and equipment had been improved. Following that, bus enthusiast and broker, Luke Bonagura of South Jersey bought the bus. In 1981, bus collector Ray Foley bought, numbering it #1946 for the year it was built (see Transport Heritage Vol.9 No.4, page 1). Foley sold the bus to Bill Clelland in 1988. After careful maintenance and occasional operation Clelland repainted the bus into its present traction orange and crème. It was his intention to repaint the bus into its original attractive maroon, black and silver Somerset Bus "Blue Star" paint scheme. After health problems and increasing storage expenses, he donated the bus to Friends on the condition that it continues to be stored inside and eventually be restored to Somerset colors. The bus is presently stored inside at Phillipsburg where it is infrequently operated for exhibit purposes. It participated in several parades and was on display for the first annual Friends members' day in 2000. The ownership of Somerset Ford #9082 is an important fulfillment of one of the critical items on Friends' bus and coach search list. We appreciate Bill Clelland's generosity and the foresight of its previous owner preservationists.

Lafayette & Greenville Bus Owners Association #204, 1983 GMC T8H-5308A, serial 0366

Lafayette & Greenville Bus Owners Association #205, 1983 GMC T8H-5308A, serial 0403 (deaccessioned - 2002)

Lafayette & Greenville Bus Owners Association #206, 1983 GMC T8H-5308A, serial 0363

These three buses are the last vehicles acquired in the 20th Century for the Heritage Center. They are significant to the New Jersey collection and bus history for a number of reasons. First, they represent the first donation of a homogeneous fleet rather than individual buses to the collection. 2.) They represent the very end of production for the "fishbowl" or "new look" generation of buses. Their presence in the collection enables us to interpret and display the very first suburban new look (PSCT #P-700) and these, the last of the production transit vehicles for the new look generation of buses. 3.) This is the first donation to the Heritage Center from a contemporary independent bus owners association, in this case, Lafayette and Greenville Bus, Inc. (L&G). This ensures that least one independent bus owner association (IBOA) paint scheme and logo will be represented in the State collection. 4.) The first and last buses in the new look generation, spanning 23 years, contrast in design, representing the variety of options and refinements available in the new look series. These variations found in our state's collection (PSCT P-700 and L&G 204,206) include V-6 and V-8 engines, manual and automatic transmission, suburban and transit platforms, one and two door, with and without standee windows, initial US GMC production and ending in Canadian independent production. Many less apparent refinements were made in the GMC new look design over the 23 years of its production run.

The three (actually four including a parts bus not removed from L&G, except in pieces) originally purchased as part of a large order by the State of Connecticut Transit (CTT). In the early 1980s, CTT was conservative in their bus specification. They ordered "new look" type buses fully three years after the newer generation Advanced Design Bus (ADB) was produced. After "new look" production was discontinued, Connecticut and several private operators continued to order a Canadian update of the new look called "The Classic." The term "Classic" was derived from the over 20 year old designs made over with new window treatments and some new body panels. No Classics operated in New Jersey. The classic was an alternative for the operators that were skeptical of the new ADB generation. Their skepticism was reinforced by the structural failure of the initial Flxible and GMC ADB production designs. Our NJT Grumman Flxible #1596 sold to NJ Transit by New York City Transit typified this early design flaw that was subsequently remedied.

Connecticut distributed its 1983 fleet of 53 "fishbowls" among the state's transit operators and cities, in much the same way that NJ Transit leases new buses to New Jersey independent bus operators. Consistent with earlier Connecticut practice, the fishbowls were fleet numbered in the 8301-8333, 8351-8370 series (for 1983 year of delivery and manufacture). CTT disposed of the retired 8300 series buses by auction. Our three buses are believed to have been purchased by bus broker and operator "Double A" Transit and then resold to Lafayette and Greenville Bus. The first bus in the order #8301, our parts hulk never ran for L&G.

All three (now two) of these buses in the collection are equipped with a two-stroke, 8V-71 series Detroit Diesel mounted transversally at the rear of the vehicle. The drivetrain is an Allison V-730 3-speed automatic transmission. Air conditioning is integral gear driven (earlier models like the P-700 were belt driven) off the engine. The series is a two-door transit configuration, 40' long by 96" wide.

These are air conditioned 53-passenger models in the eighth (and last) generation, hence "T8H-5308A nomenclature." Bus #206 (former #8310, serial number 0363) was repainted into L&G's attractive green and white paint scheme, but was seldom used. It is equipped with deluxe tan vinyl high-back seats in a combination of cross and

longitudinal configuration. #206 appears to have been last assigned to Northeast Transportation Company, a contract operator in Waterbury, CT. We found Northeast Transportation literature inside the bus, but it operated in Hartford Britain for most of its life. Bus #204 (former #8313, serial number 0366) is equipped similar to #206. New Britain Transportation re-equipped #205 with deluxe reclining high back cloth seats, a rarity in transit buses, especially in cross and longitudinal configuration. The current L&G paint schemes vary slightly between the three buses. All were repainted by L&G's maintenance force. Friends member, Sidney Keyles researched the origins of the buses.

We are very appreciative of L&G generosity and specifically Mr. John T. Failla, L&G's former Chief Financial Officer and General Manager. All three of the buses run well and #204 and #205 ran under their own power from L&G's Jersey City Garage to the Lakewood Division vintage bus interim storage facility. All three buses were driven into the storage garage under their own power.

Aside from historical significance, what are the functional possibilities of the L&G donation to the Heritage Center through "Friends?" This donation of an entire small fleet by L&G opens the possibility of having a dedicated number of similar vintage buses that can be used for on-site tours, once the Heritage Center grounds are developed, or during the center's development process. These buses would be used for guided tours of the site by Heritage Center visitors prior to the construction of a trolley line or on days when the trolley would be out of service, or on days when the volume of visitors does not justify opening the trolley operation. They also provide opportunity as dynamic exhibits of bus industry development and bus vehicle design evolution. As operating exhibits, any of these three buses can also potentially participate in parades or be exhibited at special events, like the Hoboken Festival, representing the Heritage Center. In one future scenario, if one or more of the buses becomes disabled or damaged, one or two of the others could be used to keep one representative of the vintage fleet operating. In February 2002, bus #205 has been de-accessioned in a transaction to obtain an operating 1952 GMC PD-4103.

Asbury Park – New York Transit #125, 1952 GMC PD-4103, serial number 0934

Coach #125 is an acquisition in fulfillment of our collection search list (PD4101-4103 post war spring ride diesel over-the-road 35' coach). It also adds another privately owned bus carrier representative to the State vintage bus and coach collection. Asbury Park-New York Transit was owned and operated by the Rollo family. This family operation provided local buses service around Keyport and Keansburg after the demise Central Jersey Traction trolleys. Rollo, under contract also provided bus service for Central Railroad of New Jersey upon discontinuance of local trains service on the CNJ Freehold Matawan branch. Rollo, doing business as Asbury Park - N.Y. Transit (APNYT) expanded its operation to interstate commuter service to the midtown Manhattan PABT. Subsequently, APNYT sold #125 to Super Service, a charter coach operator in South Amboy. It's last owner operator was a church in Perth Amboy. It was then sold to a private collector in New England and rescued just before scrapping by Nick DeBenedetto, a Jersey bus collector. He donated it with many spare parts (including 45 replacement seats) to Friends in February 2002 as part of a three-party trade. The bus was towed to Lakewood on February 22 and driven into the garage under its own power. Replacement sash and seats have subsequently been obtained from other collections.

This coach was last of 9 coaches, numbered in the 115-125 series, purchased between 1951 and 1952 by APNYT. #125 was purchased new and was equipped with 45 high density reclining deluxe seats, but no air conditioning. APNYT preferred parlor buses at this time because they were more marketable for charter work than the transit bus-derived early suburban bus designs of the era. The PD4103 was popular with Jersey Shore family operators. Boro Buses (Russell family), N.Y. Keansburg Long Branch Bus Co. (Gelhaus family) and Lincoln Transit (Casser family) bought 4103 models. At least ten other New Jersey operators purchased this model including Trailways and Greyhound. Almost 1500 units were sold in North America in the three years it was produced. The model PD-4103 was superseded by the air-ride PD-4104 like our ex-PSCT #L627, which was a complete redesign of the model it succeeded.

NEW JERSEY STATEWIDE HISTORIC BUS AND COACH - COLLECTION**

Compiled by S. David Phraner (as of 10/22/02):

Orig.#;	Operator;	Model(serial.#);	manuf'er;	year built;	length(ft.);	owner
*L627;	PSCT;	PD-4104 (2281);	GMC;	1957;	35;	NJT
W608;	PSCT;	PD-4106 (3129);	GMC;	1965;	35;	NJT
P700;	PSCT;	SDM-5301 (001);	GMC;	1960;	40;	NJT
K339;	PSCT;	TDH-4512 (1440);	GMC;	1956;	35;	NJT
*J411;	PSCT;	TDH-4512 (1165);	GMC;	1955;	35;	FNJTHC
Z603;	TNJ;	PD-4903 (078);	GMC;	1968;	40;	NJT
Passaic-Athenia/NJDOT #8394 -						
743;	Inter-City Trans	TDM-4515 (230);	GMC;	1956;	35;	NJT
50;	Holloway Bus	B-35PT (A953);	Beaver;	1953;	35;	NJT
Monroe County (Stroudsburg, Pa) Transit #248 -						
248;	Westwood Tr;	SDM-4502 (087);	GMC;	1966;	35;	NJT
T776;	PSCT;	service truck	Mack;	1940;	40;	NJT
Mercer County (Trenton) Impr. Auth. #920 -						
*E313;	PSCT	TDH-4509 (1901);	GMC;	1951;	35;	NJT
M720;	PSCT;	TDM-5108 (296);	GMC;	1958;	40;	NJT
K702;	PSCT;	TDM-5106 (0118);	GMC;	1956;	40;	NJT
NYCTA #6286 - (fleet number and paint for movie use)						
B139;	North.Blvd Tran;	C-45DT (4755);	Mack;	1951;	35;	NJT
3;	Capital Transit;	"Snow Fighter"	Walters;	194_;	n/a;	NJT
*7126;	NJDOT/TNJ/TT;	53102-8-1 (61368);	Rohr Flxible;	1976;	40;	NJT
*7375;	NJDOT/HAML;	45102-6-1 (61551);	Rohr Flxible;	1976;	35;	NJT
*2478;	NJT;	870-40102-6-1(92045);	Grum/Flxible;	1980;	40;	NJT
*2505;	NJT;	870-40102-6-1(92037)	Grum/Flxible;	1980;	40;	NJT
*1009;	NJT;	870-40102-6T (93838);	Grum/Flxible;	1981;	40;	NJT
*1443;	NJT;	Metro (95329);	Flxible;	1983;	40;	NJT
*1448;	R&T-HBT/NJT;	Metro	Flxible;	1984;	40;	NJT
*2277;	L&G/NJT;	870-40102-6-1(92665)	Grum/Flxible;	1980;	40;	NJT
Lancaster (OH) Transit #1 -						
*5496;	PSCT;	733 (943);	Yellow Coach;	1937;	23.5;	FNJTHC
Ct. Transit (CTT)/Northeast Transport. (Waterbury), New Britain Transport. #8313, #8367, #8310-						
*204;	Laf& Greenvl;	T8H-5308A (0366)	GM Canada	1983	40;	FNJTHC
*205;	Laf& Greenvl;	T8H-5308A (0403)	GM Canada	1983	40;	***FNJTHC
*206;	Laf& Greenvl;	T8H-5308A (0363)	GM Canada	1983	40;	FNJTHC
*9082;	Somerset Bus;	69-B (770015)	Ford Transit	1946	25;	FNJTHC
*Z-547;	PSCT;	T6M-5306N (047)	GMC;	1968;	40;	FNJTHC
*G-572;	PSCT;	TDM-4512 (061)	GMC;	1953;	35;	FNJTHC
*1596;	NJT(NYCT)	870-40102-6T (92057);	Grum/Flxible	1980;	40;	FNJTHC
*125;	Asb.Pk. NY Tr.	PD-4103 (0934)	GMC;	1952;	35;	FNJTHC
*6106;	NJT;	MC-9A (CP037503)	Motor Coach Ind.	1982;	40;	FNJTHC
*5036;	NJT;	MC-9B (HP041089)	MCI	1987;	40;	FNJTHC

Notes:

10/02 Vehicle count - 34, (12-FNJTHC, 22-NJT)

* Vehicles so designated are operable or stored serviceable (capable of returning to operation quickly)

** Vehicles currently owned by NJ Transit or FNJRR&TM Inc. "Friends", stored secure inside at Lakewood, Newark, Hamilton or Phillipsburg.

*** De-accessioned

NEW JERSEY HISTORIC BUS AND COACH - SEARCH LIST

Compiled by S. David Phraner (as of 10/23/02)

New Jersey Bus and Coach Collection Search List:

There are gaps in New Jersey's present collection. A periodically updated "search list" helps us to identify acquisition priorities to fully interpret street transportation in New Jersey. For example, the collection has no representative of a 1930s heavy-duty bus or a 1920-30 vintage engine-in-front, long distance coach. Also not represented are GMC, ACF or Mack 31-32 and 36-37 passenger transit buses of the 1940-50s, though they may be available from private collections. Some items in prior search lists have been subsequently obtained. A semi-suburban "new look", a Ford Transit, MCIs and ADBs are now in the collection. The state's historic first bus purchase in 1976 of hundreds of Flxible transits and suburbans is now represented by preserved two 35' and 40' models. Some manufacturers once common in NJ are entirely missing including; ACF/Brill, Twin Coach, Aerocoach and White.

Orig.#;	Operator;	Model(ser.#);	manuf'er;	yr. built;	length (ft.);	owner/comment
*1470;	Greyhound;	PD-4501, "Scenicruiser"	GMC;	1954;	45;	
8647;	PSCT;	(ASV/DE) 736/729...;	Yellow Coach;	1938;	30;	NMT
*7	Summit N. Prov.;	786-1...;	White;	1940;	30;	MG/JO
*335/39;	ACty.Tr/TTC;	41-S or 38-S;	Twin Coach;	1947-49;	33-35;	JM/BC
*	Greyhound/Ind.;	PD/3707,4151;	GMC;	1947;	35;	
*B600;	PSCT/Ind.;	PD-4101,02,03	GMC;	1948-'53;	35; xxx	** 4103, 2/02
*A200;	PSCT/Ind.;	TDM-3610/12;	GMC;	1950;	30;	S,RF
*A100;	PSCT/Ind.;	TDH-3207;	GMC;	1947;	28;	EN
A900;	PSCT/Ind.;	C-44; C-36	ACF-Brill;	1951;	33-35;	
*	PSCT/Ind.;	69-B	Ford/M-Herr.	1946-'53;	25; xxx	** Ford, 9/01
- ;	Atl.Cty. Jitney;	Metro/C10;	Int'l/ACF;	1947-'51;	18;	
- ;	Trailways/Ind.;	PB-37/IC-41;	ACF;	1950;	35;	
*C120;	PSCT/Ind.;	TDH-3209;	GMC;	1949;	28;	
- ;	PSCT/Ind.;	PD/G-3703;	GMC;	1940;	33;	CF
- ;	PSCT/Ind.;	TD/G-4006/7/8;	GMC;	1947;	33;	
- ;	Indep.;	any engine-in-front, pre-war model (ie: White "54"/YC "Z")				
*7600;	NJDOT/TNJ	any 30" model	Flxible;	1976;	30-35;	
*9100;	NJT	B10-M Articulated	Volvo	1990	50+	
*PA6100;	NJT	MC-9A "Cruiser"	MCI	1982	40 xxx	** 9/02 (6106)
*PA5000;	NJT	MC-9B "Cruiser"	MCI	1987	40 xxx	** 9/02 (5036)
*5500;	NJT	Eagle AE-20(NJ custom)	Eagle Coach	1989	40	NJT staff rejected
*2601;	NJT	RTS T80206	Nova Bus Inc.	1998	41	

Potential generic additions to the search list:

- trolley coach - to represent a PS All-Service "trolley" coach, consider another bus model like the D-900 (TDH-4509/12 cosmetically altered) or a conventional trolley coach.
- early taxi - PS owned Yellow Cab Co.
- stage coach, horse drawn omnibus or operating replica
- horse car... or replica
- sled versions of the latter three items that were used in winter.
- Any bus vehicle manufactured in NJ. Other rail and streetcar items are subjects of a separate list

Notes:

Owners: These are initials of those known to have such models or specific buses in their collections in or about N. J.

footnotes: * - denotes vehicles are restored and/or operable.

** - denotes vehicles currently owned by NJT or FNJRR&TM Inc. are stored at Lakewood interim vintage bus storage and other NJT facilities, L627 at Doremus Ave./NBC; E313 at Hamilton; 5496 and 9082 at FNJRR&TM, Phillipsburg.

xxx - denotes partial or total fulfillment of search list.