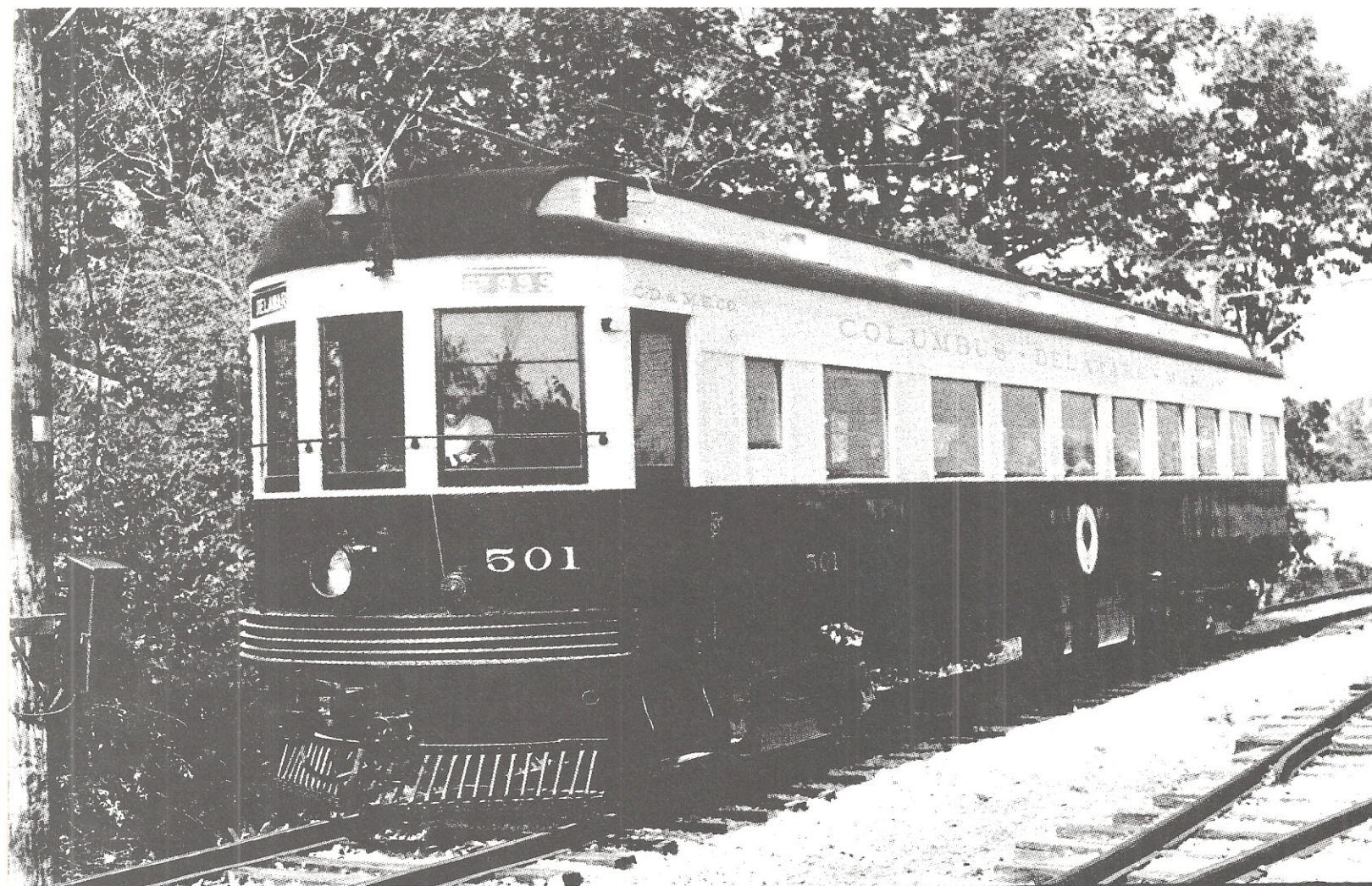


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RETURN OF THE REDBIRD

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■ KEN HAYES ■

THE DEMISE OF PUBLIC ENTERPRISE

Recently, a number of cities have been reporting trouble with their city-owned transit systems--usually just plain running out of money. You can all recall the big ones: Chicago, Kansas City, New York City, etc. Other city-owned systems have other, less evident problems--political control; equipment difficulties; delays and inefficiencies in all sizes and shapes. Why is this?

First of all, let's ask if the problems are unique to city-owned systems. Certainly not. Both private operations and other types of governmentally-owned or operated systems share these problems: money, equipment, patronage and efficiency. But I would venture to say that city-owned systems (whether controlled directly or through a commission or authority) have the problem more often and more severely.

Look at Chicago and its lack of funding, dependent on a political system that ignores its needs. Ditto with Kansas City's "Area" Authority--which to all intents and purposes no longer is one. And San Francisco's equipment problems are something to behold--rumors of new equipment that begins to be cannibalized soon after it is received.

Look also at the New York City problem of coordination--piling one on top of another like a stack of pancakes. The MTA, holding the former Transit Authority properties, the Long Island Railroad and a number of other commuter lines; PATH; a separated Staten Island system; a few privately-owned (but usually successful) bus operators.

Look at the history of the New York system. Under private ownership for over 40 years, the system was built and struggled along under a 5¢ fare mandate. But the bankruptcies which resulted and were used as excuses to take over the system were not only the result of that inflexible fare, but also of the parallel construction by the city of a competing subway system (the IND) and expressways. And look what happened after the takeover. After 40+ years of 5¢ fares, the rate went up to 10¢ for a short time, then to 15¢ for over a decade, then up and up to its present level. And the system loses more than it ever did before. The city still strangles twice a day. And the story, sans competing system, is nearly the same in Chicago.

Is there a lesson here? While I am an advocate of private ownership, I realize that it has flopped just as much as public ownership (witness NCL or post-merger Chromalloy-American). But if there is a choice, an independent organization is clearly indicated, one not subject to political influence, and one that is independent in funding and authority. These are the better choices: 1) the independently-regulated private operation; 2) the independent but subsidized private operation; 3) the District-owned but privately-operated (under contract) system; 4) the District-owned-and-operated system. In all the district cases, board membership should be elective, and on the basis of experience in transportation, not politics. These, in my opinion, constitute the better way to rescue a public enterprise from strangulation.

METRO MEMO

CITY/SUBURBAN LINES

■ Aid to the needy: Both the city of Chicago and the Cook County board have quickly come thru with their respective shares of funds for the Chicago Transit Authority, as provided for in the legislation recently passed by the Illinois General Assembly and signed by Governor Ogilvie, and the CTA's coffers are a total of \$5,000,000 richer. Funding from local, state and federal governments are to be used, under a complicated formula, for both operating expenses and capital projects.

■ A goodly portion of the public funding will be used for the purchase of 1,000 new buses. At a regular CTA Board meeting August 5, Chairman Michael Cafferty broke precedent by inviting citizen participation in certain facets of the new surface equipment order, soliciting lay opinions on amenities, color and styling. Demonstrator coaches from several builders with varying seat configurations and interior/exterior appointments are to go out into the neighborhoods to assist in sampling rider opinion, and elsewhere-effective gimmicks like "color-the-new-bus" contests may also be employed in an attempt to initiate meaningful dialogues between the riding public and a carrier often colored as aloof from its patrons.

■ Elsewhere on the CTA system, a highly-effective police "decoy" system has resulted in a number of well-publicized arrests of hoodlums intent on robbery and assault on rapid transit passengers. As part of a continuing program of police (city) surveillance of the crime-prone subway and elevated lines, plain-clothes police have been feigning drunkenness and sleep to lure persons bent on robbery or mugging; once an attempt is made on the person of the "decoy" partners step in and make arrests. Five hoodlums were captured with this plan in the space of as many days, to the accompaniment of banner headlines and a welter of publicity, all quite favorable, for CTA and police.

■ Illinois Central electric HighLiner cars 1501-10 are now on the property, and several are in regular service, including at least one rush-hour 4 car train... As expected, Hammond's Chicago & Calumet District Transit Corporation has won the authority to drop all local service in the Calumet area; runs to Chicago (mostly rush-hours) continue.

MASS TRANSIT AND WARREN, MICH.

Warren, Mich. is a city of about 36 square miles with 200,000 people and no downtown. There are 3.8 persons in an average family. They have a median income of \$9,000 per year. Warren's work force is 62% blue collar.

In its make-up, the city is roughly typical of a hundred other American towns with one exception -- automobiles. Warren has lots of them; 52% of the city's households have one and 45% have two or more. Fully 90% of all trips made in the city are by car.

These are some of the facts that faced transportation experts at the GM Research Labs as they sought to find out if a mass transit plan they were working on would fit in in a town like Warren. What they had in mind was called a Demand-Responsive Jitney System (D-J). It's a plan to use small bus-like vehicles to pick you up at your house and take you wherever you want to go; shopping, to work, out to dinner.

To find out, GMR drew up two questionnaires, put down 32 characteristics of D-J's they had in mind, and then went into 1,600 households and started interviewing. To preserve objectivity, interviewers were careful not to identify GM as the sponsor.

The results show that D-J can work. And, under certain conditions, it could support itself financially. The study also concluded that D-J has enough merit to warrant starting demonstration programs now. At the same time, it showed that present vehicles are not suitable and that now would be a good time to start designing new ones.

On the personal side, GMR found out that "arriving at your destination when you planned to," the "assurance of getting a seat," and making a trip without changing vehicles" are of greatest importance to potential passengers. Of least importance are "coffee, newspapers, etc., on board the vehicle" and "stylish vehicle exterior." To the elderly, "having a seat" and "no transfer trip" are most important.

Beyond these personal likes, GMR also found out that people in Warren think "public" transportation is contrary to the American life style of freedom and flexibility of travel, and also that teenagers feel there is a stigma attached to using public transportation for social-recreation trips.

The real upshot, of course, is that GMR now has detailed knowledge about D-J. This knowledge is like gold because it is based on facts and public attitudes about specific proposals, and not on speculation spawned in a cloistered, think-tank atmosphere. This puts GMR in a position to provide knowledge consultation to any government or group considering demand-responsive transportation systems.

--GM Coachman

DOT DATA

■ Recent grants by the Urban Mass Transportation Administration:

- \$1,800,000 to the Port Authority of Allegheny County (Pittsburgh) to assist in the purchase of 108 new vehicles, 630 two-way radios and in the construction of 65 bus stop shelters for the area. The grant is in addition to one announced late in June, and will help pay for 42 buses, 32 service trucks, and 34 supervisor's cars.
- A total of \$6,000,000 for the construction and demonstration of four innovative new Personal Rapid Transit (PRT) systems. The new hardware will be installed and tested at the U.S. International Transportation Exposition, to be known as TRANSP0, and held at Dulles International Airport near Washington, D.C. during May and June of next year. The awards, for about \$1,500,000 each, went to the Dashaveyor Company (Los Angeles); the Ford Motor Company (Dearborn); Transportation Technology, Inc. (Denver); and the Varo Corporation (Garland TX). Dashaveyor will build and demonstrate a 31-passenger rubber-tired vehicle, electrically-propelled with a guideway switch. Ford will construct and demonstrate a smaller 24-passenger car system, incorporating an on-board switch. Transportation Technology will demonstrate a PRT system with air-pad suspension and linear-induction motor propulsion. Varo will demonstrate a suspended monorail PRT using on-board switches activated by the guideway. Personal Rapid Transit systems, sometimes called "people movers", are characterized by small, independently-powered vehicles traveling at relatively low speeds on exclusive guideways under automatic control. The objective of the PRT is to move riders along a guideway between closely-spaced stations. However, because the systems use stations which are on spur lines rather than the main line, it is possible for PRT cars to bypass all but the one station pre-selected by the individual PRT rider.
- \$74,350 to the Southern California Rapid Transit District for the purchase of 19 20-passenger mini-buses powered by propane fuel, all to be operated in the Central Business District of Los Angeles.
- \$3,961,674 to the Regional Transit Service of Rochester, New York, to help in the modernization and expansion of RTS' bus garage and maintenance headquarters in Rochester.
- \$1,018,075 to the Metropolitan Tulsa Transit Authority for the modernization and expansion of public bus service in Tulsa. The MTTA will use the funds to purchase 45 new buses to assist in the replacement of an overage fleet; all of the carrier's current 45 buses are at least 10 years old, and six of the units date back to 1957. The grant will also be used to provide for other improvements, including the expansion of service to areas not presently served by the MTTA. The Metropolitan Tulsa Transit Authority assumed the burden of operating Tulsa transit services when MK&O Transit Lines ceased to run them in 1968; that firm was a subsidiary of MK&O Coach Lines, the inter-city bus carrier serving much of the Southwest. MK&O was prevailed upon to operate Tulsa bus services in 1956 after the former Tulsa City Lines' (NCL) franchise was revoked in a hot political fight. Both of the former operators took much, if not all, of their buses with them (or sold them off to other carriers) when they discontinued local services; MK&O had almost completely re-equipped the property with new coaches on beginning operations.

URBAN REPORT

■ Jeff Mora of UMTA notes that the report (by Carl Englund) referred to here in synopsis form in the 12 July issue (Washington Metropolitan Area Rail Commuter Feasibility Study) may be purchased (\$3.00 per copy) from the National Technical Information Service, Department of Commerce, Springfield VA 22151. The order number for the well-researched report (which recommends some cutbacks and other expansions of rail commuter services in the D.C. area) is PB-200-103.

■ The STERLING LIMITED, a new employment express bus service between Detroit and the Warren area, began service July 19. Designed to transport people living on Detroit's near east and near west side to jobs and employment opportunities along Lound and Van Dyke Roads in the cities of Warren and Sterling Heights, the new service is funded through grants from DOT and the state of Michigan, with in-kind staff assistance from the Greater Detroit Chamber of Commerce. Two routes, each from a different Detroit area (one from near east, one from near west) are operated by the Department of Street Railways of the city of Detroit (DSR) at a 75¢ fare. Two trips each way are operated for the convenience of workers on the second (PM) shift from each of the two areas. The STERLING LIMITED joins two other similar services, the NEW HAVEN EXPRESS and the NORTHWEST LAHSER EXPRESS (the latter operated by Chromalloy-affiliated Great Lakes Transit) in providing home-to-job transportation for ghetto residents. All three services are supervised by the Southeastern Michigan Transportation Authority.

■ Many reasons have been raised for the continuing unpopularity of trolley coaches around the U.S., but none as specious as one cited by a pro-electric letter-to-the-editor writer in a Chicago paper the other day. In urging retention of the quiet and non-polluting vehicles, he pooh-pooed the CTA's supposed contention that motor buses, because of their flexibility, had to be operated because of their ability to be used for troop movements in the event of a war. Actually, if the truth be told, trolley coaches performed quite well during the last war, since they did not use up essential stocks of petroleum fuels. In fact, except for obvious cutbacks in hours operated, and a general reduction of mileage thru fewer trips in base periods, no trolley coach services in either North American country were ordered discontinued by the Office of Defense Transportation (which curtailed many motor bus services) since they, largely operating on the heavier lines, were performing a valuable wartime service in carrying defense workers.

■ Dayton's Western Flyer trolley coach demonstrator, #900, was rolled out for an inspection trip two weeks ago, and this reporter was privileged to be present. Having ridden similar units in Toronto, I was somewhat disappointed by the rough-riding (in the sense of vibration at speed) characteristics of the Dayton "economy" model. And, as contrasted to TTC's bright colors policy, the drab interior would seem to do little to point up the coach's newness. The 900 is in Dayton (and is owned by the City Transit Company) to influence voters in a special election October 1 to in effect retain electric service in the Gem City. For the statistically-minded, 900's GE motor comes from Peoples Transit Brill 37, its GE control from similar Peoples unit #42, and its compressor from Columbus Transit Marmon-Herrington #625. Dayton purchased a number of Columbus units, some for service (19 in all, when current conversions are complete) and some for parts.

■ Some cogent comment on transit: From a De Leuw, Cather report on the Immediate Bus Improvement Plan for Portland Oregon--"The only difference between new buses and old ones is that the new ones are cleaner. Vehicular comfort has not been im-

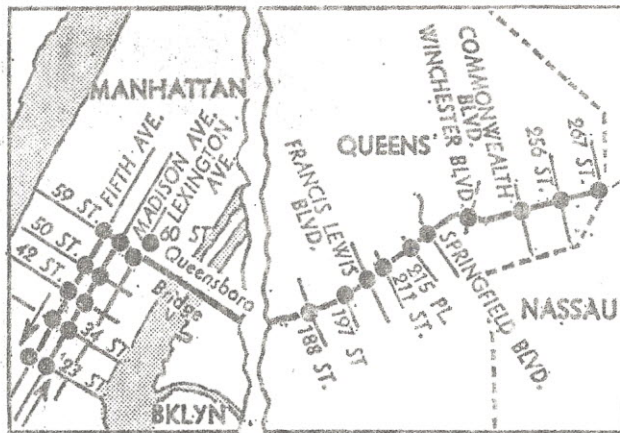
proved and new buses are noisier than old ones." De Leuw's chief transportation engineer Carl Buttke adds, "Only two U.S. firms--General Motors and Flxible--make today's buses. And they are almost identical. This is the fault of the transit industry for not asking for more sweeping changes, even if it means paying more for vehicles."

More cogent comment: Humorist and author Sol Weinstein--"The number one reason for prostitution is bad bus service. In a city where you have bad bus service, a girl has no recourse but to walk the streets, so she says, 'as long as I'm walking I might as well make a few dollars.'" A TC reader, who wishes to remain anonymous, commenting on our editorial asking why we can get a man to the moon in three days, but not a man to work in less than an hour--"because there are no people between here and the moon." (Think about that).

■ Amalgamated Transit Union members in Boston are now the first urban bus drivers in the U.S. earning more than \$5.00 per hour. Their rate moved to \$5.02 July 1... ■ If the Connecticut Department of Transportation approves an MTA-originated move, fares on the New Haven's commuter services (administered jointly by both agencies) will be restructured September 1. The change would serve principally to increase the price of ten-ride tickets. Most monthly fares would drop slightly, and the present 46-ride punch-type ticket would be replaced by an unlimited flash-type du-cat. The new tariffs would put the New Haven on a scale similar to that introduced on the PC Harlem and Hudson Divisions two years ago... ■ The Greater Peoria Mass Transit District has adopted a 10-ride ticket plan that will allow passengers to use the bus for 35¢ per ride, 5¢ less than the regular adult fare. GPMTD officials are also exploring the possibility of providing contract bus service to the suburb of Bartonville after Labor Day, in the same fashion as present East Peoria runs. The same District withdrew its reduced Saturday fare program in June.

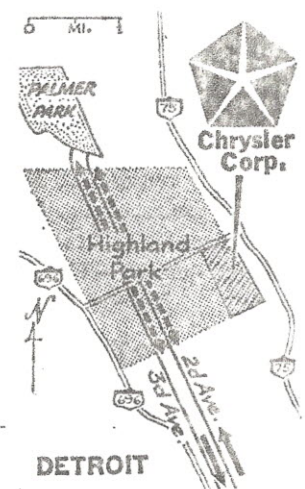
■ Göteborg, Sweden now has a limited-tram service operating at speeds of up to 90-100 kilometers per hour. Only two stops are made on the new suburban line... ■ The South Shore has reported a 5 per cent increase in ridership over the last month, probably due to the continuing repairs on the south side Dan Ryan expressway... ■ The King and Barton trolley coach routes in Hamilton have been temporarily converted to motor bus operation due to street construction. The Cannon route remains in service electrically... ■ Cleveland's new order of Flxible air-conditioned buses will be delayed in delivery because of a possible Flxible strike, and CTS riders will not have the benefits of cool comfort this summer... ■ City bus service in Euclid (to the east of Cleveland, and municipally-owned) will be cut back on Saturday evenings in an effort to stem the rising tide of red ink. Euclid's buses are moving into a brand-new garage complex to the west of the old Lakeland Boulevard location.

■ The New Jersey Commuter Operating Agency has approved fare increases ranging as high as 20 per cent on portions of the state's commuter roads. And, in a major policy decision, the agency said that for the first time it was rewarding acceptable service with fare increases and denying such hikes where it considered service to be inferior. The hikes go into effect September 10 and involve a 20% increase for CNJ riders, 15% for Erie-Lackawanna commuters and 10% for passengers commuting on the Penn Central main line. At the same time, the agency rejected a request for a 10% hike on PC and CNJ services from the New Jersey shore areas to New York City on the grounds that both lines were not providing satisfactory commutation service, altho intrastate rates were hiked 10% on both lines. Both roads were put on notice that interstate (to New York City) rates will also be raised when and if the quality of service (largely on-time performance) improves.



■ Encouraged over the success of two similar express service, the New York City Transit Authority has begun yet another high-speed bus run, linking a portion of Queens with Manhattan during rush hours. The new service, to be designated Q-18X HILLSIDE AVENUE-MANHATTAN EXPRESS (see NEW YORK TIMES map adjacent) will charge a one-way fare of \$1. The Transit Authority also operates similar services linking Manhattan with Staten Island via the Narrows bridge and to Yorkville on the Upper East Side from Wall Street.

■ A unique experiment in lessening rush-hour traffic has resulted in the downgrading of the automobile in the city it calls home. Concerned over the deterioration of the quality of life caused by the proliferating automobile, officials of the suburb of Highland Park (like neighboring Hamtramck completely surrounded by Detroit) have enacted a drastic plan to remove autos from some streets by making them inconvenient for commuting. On August 7, tree-lined Second and Third avenues, major thoroughfares to and from downtown Detroit, will switch from one-way traffic to become local two-way streets with ample stop signs. The two avenues were to become unnecessary as thoroughfares on completion of new expressway connections paralleling their length (see NEW YORK TIMES map at right), but even after the links were finished Detroit officials felt the alternates were still needed. Highland Park city fathers rejected this contention and the action (against which Detroit is powerless) will take place as planned.



■ Mayor Moon Landrieu of New Orleans has proposed extension of the St. Charles surface rail line along Bourbon Street to Esplanade, returning via Royal Street. Such a route has not seen rail service since the demise of the famed DESIRE line in 1948. ...■ The trustees of the bankrupt Boston & Maine Corporation have asked the Interstate Commerce Commission to dismiss its application for abandonment of the 1500 mile road, whose passenger service consists mainly of Boston-area commuter runs. At the same time, one of the road's trustees suggested that a way out might be to pave a portion of the line's right-of-way for a high-speed private bus and automobile road between Rockport (35 miles to the north) and Boston. The road has offered its Reading commuter line (operating north of Boston to Malden, Reading and Melrose) to the Massachusetts Bay Transportation Authority; litigation relative to the sale price is currently pending in court. MBTA has also been subsidizing the road's commuter runs.

■ Running extra: A special inspection trip with one of Milwaukee's rare TDH-4511 GMC coaches, currently in storage; only 120 were built, all for the Transport Company in 1950-51. The Wisconsin Electric Railway Historical Society is sponsoring the 6-hour tour (\$5 fare) set to depart from Fond du Lac station at 10:30 AM, Sunday, August 29, 1971.

■ THE COVER: TC's annual tribute to the growing trolley museum fraternity features one of the most beautiful interurban cars ever built, 1926 ACF #501 of the Columbus Delaware & Marion. The 501 has been lovingly restored to its original appearance and is now in operation at the Ohio Railway Museum in Worthington. (Photo from ORM)

AIRLINE ACTION

KEEPING AHEAD OF THE JONESES

■ In a move whose speed was more characteristic of a spacecraft than a mere jet, American Airlines got a leg up on its arch-rival United by placing its first DC-10 in service ahead of UAL after all. AA had planned to begin DC-10 service on August 17 between Chicago and Los Angeles, whereupon United scurried about to get its own craft ready for an August 16 inaugural.

But American was not to be topped. Speeding up its already ahead-of-schedule certification and training program, AA received its DC-10 commercial certificate on August; McDonnell-Douglas had just received its own DC-10 type certificate on July 29. Training having gone on in computerized flight simulators for some time previously, AA pilots were able to earn their wings on the new wide-bodied craft in record time, hence the early service inaugural date.

AA was the first airline to order the DC-10 early in 1968. Concept of the so-called "universal airplane" is credited to Franklin W. Kolk, American's vice president of development engineering, whose design team specified a wide-body airplane that could fly in and out of small airports and could serve short-haul runs economically. AA's engineers also played a major role in the development of earlier DC aircraft, particularly the DC-3, the first of which was delivered to American and placed into service between Chicago and New York in 1936.

Only one DC-10 has been delivered to American at this time; it will depart Los Angeles International (LAX) at 9:45 AM PDT daily, arriving at O'Hare at 3:25 PM. The turnaround to LAX leaves ORD at 4:40, arriving there at 6:36 PM. The craft can carry 300 passengers and cruise at 570 mph; the unloaded jet weighs 225 tons.

ALMS FOR THE POOR

■ The Senate, by a one-vote margin, has given approval to legislation aimed at staying off a Lockheed bankruptcy. The legislation would permit the government to guarantee up to \$250,000,000 in bank loans to any corporation whose failure would "seriously and adversely" affect the national economy or that of any region, but the entire bundle is expected to go to Lockheed, whose troubles stem from the bankruptcy of engine manufacturer Rolls-Royce, supplier of power plants for the currently-in-production L-1011 TriStar jet. The President plans to sign the bill immediately, hailing it as a decision "in the best interests of the people."

(And so Congress, which for once acted admirably in keeping out of the rail dispute by letting the warring parties settle their differences independently, has interfered in the marketplace once again by shoring up a firm whose own inadequacies brought it to the brink. Perhaps the most enlightened view of the situation came from Congressional opponents of the loan guarantee, who contended that Lockheed would probably never sell enough TriStars to a depressed airline industry to break even on them and that the firm might be back asking for still further succor in the future. The argument was also widely made that the company had such a bad record as a defense contractor--producing planes and weapons only at huge cost overruns--that it ought to be allowed to die. Apparently the view was taken that full employment in the short run was better than corporate strength in the long run.--EDITOR)

JET JOTTINGS

■ Negotiators for International Air Transport Association member carriers seem to be getting nowhere in their bid to untangle the complex fare structure dispute at the IATA meeting in Montreal. The presidents of the 25 carriers have been called to Montreal in hopes their efforts might succeed where their hirelings' have not. If no agreement is reached--and the U.S.-flag carriers (privately-owned) and foreign-flag lines (largely state-owned) are far apart--chaos in tariff application is sure to result in 1972.

■ The government has asked major airframe manufacturers to submit proposals by October 15 for the design and fabrication of two experimental short-takeoff and landing (STOL) transport jets. The two planes will be used in a NASA flight research program intended to provide technological data and experience for developing "environmentally acceptable, economical and safe" fan-jet STOL systems.

■ Delta has introduced the first night coach service from Midway since the Chicago facility's re-activation in the mid-60's. Delta flight 567 departs Midway at 9 PM for St. Louis, Memphis and Jackson, at night-coach fares...■ Frontier is providing additional service to Grand Teton and Yellowstone parks in Wyoming via Jackson Hole airport and connections in Denver.

■ Another e for ecology: Pan Am has announced it will no longer promote or take part in safari tours that involve the killing of animals classified by the World Wildlife Fund as "endangered species". Among these package tours are trips to Paraguay to kill jaguars, tiger-hunting trips to India and Tanzanian leopard-hunting safaris. Pan Am's policy becomes effective August 31.

■ The Albuquerque airport was designated an international field effective October 1; the Customs service will open an office there for private and small charter craft; commercial flights will be handled as soon as CAB approval for international services is obtained...■ California's maverick Pacific Southwest Airlines (rapidly becoming the successor in these pages to Chicago's former Commuter Airlines) now soothes callers waiting for an open reservations line with recorded music...■ Fully two-thirds of the stewardesses of Zambia National Airways never get off the ground--they become pregnant during their six-month training period. The carrier has hired a gynecologist and provides birth-control information to help ease the problem.

RAILWAY REPORT

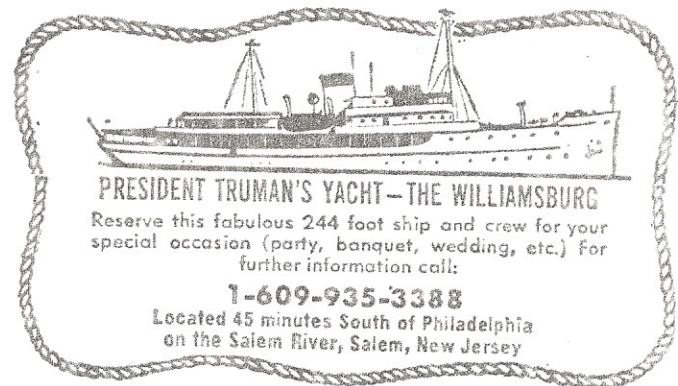
ROADBED RIPRAP

■ A plan for reorganization of the bankrupt Central of New Jersey has been filed in federal court that would make the federal government, the state of New Jersey and the C&O/B&O the road's principal stockholders. The road has been under reorganization proceedings since March 1967...■ To help writers remember that its name isn't hyphenated, reports the WALL STREET JOURNAL, the Burlington Northern sends them a six-inch metal file with instructions on how to remove the hyphen from their typewriters...■ The Worcester-New London PC (NH) Budd car did indeed come off--in May, shortly after the advent of AMTRAK...■ The Dover Plains-Chatham segment of PC's Brewster line has been declared Intercity by the ICC, and PC wants to drop the runs, but residents (most only use the line occasionally) are fighting the case in court.

NAUTICAL NOTES

STEAMSHIP SAGA

■ The end of yet another era--Cunard is hoisting the white flag. As the CHICAGO DAILY NEWS puts it, "for many years the company's luxury liners, like the pride of today's fleet, the QUEEN ELIZABETH II (QE2) have looked a lot more elegant than Cunard's profit-and-loss statement."



And so, last week the Cunard board finally recommended surrender to a takeover bid by a real estate development company, Trafalgar House Investment Ltd., which has no experience in the nautical world. Trafalgar bid \$5.05 per share, putting a total value on the storied company and its fleet of some \$65,500,000.

Cunard was started by Samuel Cunard in 1840, in the days of sailing ships, and got its first boost with the help of a £ 60,000 mail contract from the Admiralty. Over the years its business built slowly but steadily, and the firm's safety record was most impressive; no lives were lost at sea through accidents. In the early 1900's, Cunard built the LUSITANIA (sunk by a German sub in 1915) and the MAURETANIA (retired in the 1930's). In the same era, the QUEEN MARY (now in Long Beach as a tourist attraction) and the first QUEEN ELIZABETH (enroute to Formosa as a "floating university") were built, representing the ultimate in luxury. The firm now has only the QE2, CARMANIA and FRANCONIA in passenger service.

BUS BRIEFS

TO MEXICO THE HARD WAY

■ A note in TRANSPORT CENTRAL some weeks back referred to the granting of authority to Transportes Hispanos y Aztecas between Chicago and Laredo for the carriage of passengers and their baggage. No details of the operation were available at the time, but have just come to light. The Mexican-owned firm was formed to cater, quite logically, to Mexican nationals temporarily residing in Chicago, and to those former Mexican citizens who are now U.S. nationals. Service is provided on Saturdays only from a Chicago pickup point on West Taylor Street in the heart of the Mexican community to Laredo in a Ford Econoline or similar van; one driver operates the entire run on a door-to-door basis. Greyhound is understandably concerned about the "competition" and has filed complaints with the appropriate federal agencies.

ALONG THE HIGHWAY

■ Extension of the Illinois East-West Tollway (used by Greyhound trips to Clinton, the Quad Cities and points west) from its present terminus west of Aurora to Rock Falls has been bitterly protested by farmers on environmental grounds. The tollway would be only about twenty miles north of a paralleling freeway (I-80) for its entire length...■ Greyhound has begun an "Executive Coach Service" with specially-equipped units for business travelers...■ Rohr wants to purchase MCI from Greyhound.

TRANSIT JOURNAL

(Part II of the testimony of C. D. Palmer, opposing PAT's SkyBus grant proposal)

SCHEDULES -- TERL

A review of Gen. Seedlock's testimony reveals that initial priorities for the start of construction of TERL (SkyBus) are the Wabash Tunnel, South Hills Village and the alignment through Mt. Lebanon. Start of construction of the Wabash Tunnel portion is scheduled for August 1971, assuming the property is acquired and available for construction on May 1, 1971.

The testimony is that acquisition of the tunnel from its owners is still in the indefinite negotiation stage. Thus, as of this time (06 May 71) there is no assurance as to when ownership of the tunnel can be obtained and such ownership is a prerequisite to the start of construction.

Although ownership of the South Hills Village Station, shop and yard complex can probably be obtained either by negotiation or condemnation it would be foolhardy in the extreme to acquire the property or commence construction as long as the objection in Bethel Park Borough and Upper St. Clair Township (to the TERL alignment) remains unresolved. The statements of officials of those municipalities in the hearings held April 19, 20 and 21 was conclusive as to their opposition to the Early Action Program and the conclusion is inescapable that their opposition will not be easily or predictably dispelled.

As to the new alignment proposed for Mt. Lebanon, General Seedlock said that the necessary easements "have been discussed with the township officials, the churches, and cemetery board and we are hopeful of obtaining permission to build our facility under portions of their property." The fact is that one of the churches, St. Bernard's, has notified PAT that it will not consent to the proposed plan to build a cut-and-cover subway through its property. The Cemetery Board has not encouraged the PAT representatives to believe it will consent to occupying cemetery property with the proposed subway. This writer is reliably informed by officers and Board members of the Cemetery that such consent will not be forthcoming. With respect to church and cemetery property, PAT's power of eminent domain is ineffective.

General Seedlock made no mention of the situation in Beechview. There has been strong and justified opposition to the proposal to go aerial through Beechview. Those affected feel discriminated against in not having an alternate plan considered as was the case in Mt. Lebanon. Until recently the Beechview protestants have had no responsible official of the city of Pittsburgh to pursue their complaints. That state of affairs has now come to an end so that it can be confidently expected that the proposed alignment of TERL through Beechview is as yet not resolved.

In the question and answer period on April 21 it was brought out that to get access to and possession of the Penn Central Railroad Tunnel and its approaches and to the Penn Central bridge across the Monongahela River, the Railroad must discontinue the freight and passenger services now using these facilities. Discontinuance of these operations appears to be a matter of contract with some unnamed party by which railroad operations will be discontinued not later than December 31, 1972; the availability of right-of-way and bridge is crucial to the TERL plan.

It was stated by counsel to PAT that he did not know if Interstate Commerce Commission approval of the agreement was obtained. In fact, he pleaded ignorance as to whether such approval was necessary. Since the Penn Central trains over the right-of-way and bridge are patently operating in interstate commerce, it would seem to be elementary that their continuance or discontinuance is subject to Interstate Commerce Commission jurisdiction.

The TERL Construction and Procurement Schedule shows that only two construction phases are to be undertaken in 1971, i.e., site preparation in the South Hills Village area and rehabilitation of the Wabash Tunnel. The earliest scheduled start of any further construction other than these two projects is June 1972.

SOUTH PATWAY

Construction of the South PATway will start with the rehabilitation of the Mount Washington Tunnel. The start, per General Seedlock, is scheduled for the "fall" of 1971. Start of work on Mt. Washington Tunnel is contingent on acquisition of buses to convert Carrick (route 53) from streetcar operation. The necessity for this conversion lies in the fact that Route 53 lacks track connections to enable it to use the bypass route that will be employed to free up one-half of the Tunnel for construction work. Coincident with the conversion of Route 53 it is also planned to convert Knoxville (route 44) and Beltzhoover (route 49). The required buses to accomplish these conversions are included in the PAT Phase III Capital Improvement Program Application now pending in UMIA (*Recently approved--EDITOR*).

Even prompt action on the part of UMIA would not ensure delivery of buses this year considering the time required for the placement of orders and the manufacture of equipment. In view of the status of the South PATway it is questionable that any considerable amount would be required in the next 12 to 15 months.

In a later section of this statement the plan to convert the Mt. Washington Tunnel is discussed. If the alternative to that plan is adopted there would be no necessity for further funding in Phase B of the South PAT way.

EAST PATWAY

Construction of the East PATway cannot start until PAT acquires the existing right-of-way of the Penn Central east of Union Station. This right-of-way, per General Seedlock, is not expected to be available for construction of the East PATway until January 1, 1973. By PAT's own admission, therefore, there is no justification for approval of that part of the Phase B application relating to funds to acquire land or perform any construction work on the East PATway.

The Phase A application dated June 4, 1970 approved by UMIA by contract dated July 1, 1970 allocated funds as among certain identified classifications of expenditures. The allocations contrasted with the amounts expended and committed as at April 15, 1971 are as follows:

	PHASE A APPL.	EXP/OBL 04/15/71	OVER (UNDER)
<u>TRANSIT EXPRESSWAY REVENUE LINE</u>			
Final Design/Engineering	\$ 1,123,000	\$2,116,140	\$ 993,140
Property Acquisition	7,560,000	215,619	(7,344,381)

PATWAYS

Final Design/Engineering	\$ 490,500	\$ 790,415	\$ 299,915
Property Acquisition	1,940,500	nil	(1,940,000)

RAIL SERVICE REHABILITATION

Design/Construction Management	50,000	136,622	86,622
Materials, Services & Labor	<u>700,000</u>	<u>59,235</u>	<u>(640,765)</u>
PROJECT SUBTOTAL	\$11,864,000	\$3,318,031	
CONTINGENCY 10%	<u>1,186,000</u>		
ESTIMATED GROSS PROJECT COST	\$13,050,000		
ADMINISTRATIVE COSTS 01/01-04/15/71		40,000	
TOTAL PROJECT COSTS AS OF 04/15/71		\$3,358,031	\$(9,691,969)

The comparison shows that PAT has overexpended in Final Design and Engineering of TERL and PATways by \$1,293,055, or 80%. This strongly suggests that UMTA has not confined PAT to the specific categories designated in its application because the overexpenditures are obviously at the expense of underexpenditures of authorizations for property acquisitions where there is an unexpenditure of \$9,284,881.

The hearings on April 19, 20 and 21 clearly disclosed the indefinite status of property acquisitions for TERL and PATways and in this connection it is noteworthy that PAT has actually concluded purchase of only one parcel at a cost of \$215,619. The record of PAT indicates that its expenditures in the areas of TERL and PATways support the conclusion that no additional funding in the amount of \$29,426,000 plus \$2,942,700 or \$32,369,300 as sought by the Phase B application is justified.

SOUTH PARK DEMONSTRATION PROJECT

There is no doubt that Westinghouse Electric was in favor of the Phase I South Park Demonstration Project. There is doubt that Westinghouse Electric consistently favored carrying out Phase II of that project.

It will be recalled that, following completion of construction of the SkyBus Demonstration at South Park in 1966 at a cost of \$5,000,000, i.e., Phase I, the operation was analyzed by MPC Corporation; the results of that analysis were published in a report dated in February 1967. That report identified over 40 areas of the technology that required further research and development before the SkyBus concept could be considered commercially feasible.

Phase II was undertaken to resolve some of the more significant problems that MPC identified. The program was funded in the amount of \$2,400,000. Westinghouse Electric was again employed to carry on the Phase II project.

Among the items requiring further research and development was a switch that would have a reaction time equal to that of a conventional steel rail switch, problems of automatic train operation relating to wayside and on-board vehicle equipment, operations on a 10% grade, modifications to cars, power pickup, walkways, etc. A specific condition attaching to the follow-on research was that it be conducted in

fair and in foul weather to better simulate conditions under which the technology would operate. The Phase II program began January 25, 1968, and was scheduled to be completed, including all testing, by December 31, 1969.

In the spring of 1969 Westinghouse concluded that the original program could not be carried out with the funds available and relying on its interpretation of the relevant contract insisted that the scope of the project be reduced. This controversy, in fact, led to a complete cessation in the Phase II project, a hiatus that prevailed from early May to September 18, 1969. When the project resumed, reduced in scope as demanded by Westinghouse, its completion, including testing, was scheduled at 12 months or about October 1, 1970.

During this hiatus Westinghouse argued that the research and development was really not necessary. Its representatives argued that PAT could proceed with final design and engineering of TERL and the working out of the bugs could be done on the project as it progressed.

This attitude was typified by the letter dated January 16, 1970, signed by W. P. Bollinger, General Manager, Transportation Division of Westinghouse, in which he said TERL "is feasible in all civil, structural, mechanical, electrical and electronic engineering aspects" and that as Systems Managers of the Preliminary Engineering Project, "We firmly conclude there are no technical barriers to the successful implementation of the system" and "Transit Expressway Revenue Line is now ready for final design engineering."

Nevertheless, more at the insistence of the Department of Transportation, Urban Mass Transportation Administration, than of PAT or Westinghouse, the Phase II project was continued.

When Phase A of the Early Action Program was authorized by the contract between PAT and the U.S., dated June 1970, it significantly and appropriately included a special condition to the following effect:

- "b. That the Public Body (PAT) make every effort to schedule Phase II of the South Park Demonstration Project PA-MTD-2 so that the results of that project will be available as early as possible in the preparation of plans and specifications for the Transit Expressway Revenue Line."

The scheduled completion date of October 1, 1970 was not met. According to testimony of General Robert Seedlock, Project Manager, in the hearings of April 19-21, 1971, the results of the project will not be available before late summer. In the light of the past performance of Westinghouse, what credence can attach to this forecast?

In this same hearing it was stated by a PAT staff member (John Cromwell) that the switch mechanism had yet to be tested under manual operation. He said the switch had been operated manually but he could not give the time required to complete a cycle. He did state that, under test, the time to operate the switch under mechanical propulsion, from unlocking to locking, was seven to eight seconds.

During the colloquy it was stated that the reaction time of the switch under manual operation would be furnished later. That material was delivered April 27 and the answer is quoted in full as follows:

"The switch at South Park has been operated manually. The operation was not performed as a test, but to verify functioning of the manual mode. It was not timed with a stop watch. The manual operation included shutting down

the traction power to the switch, pulling the locking pins, inserting the crank and cranking the switching element to the opposite position and reset the pins. The time to perform this operation was approximately 10 minutes. Manual operation of the switch will be precisely timed during the test program.

It should be noted that the design of the manual cranking system for the switch installed at South Park is not a prototype design for the revenue line. Specification for switches for the revenue line are in preparation, but are not complete at this time.

The provision of a device for manual switch operation on the revenue line is not a technological problem. Examples of manual operation of comparable devices, with reaction times of a minute or less, are common throughout industry. It should be noted that on the New York City Transit system and the SEPTA system, to cite two examples, manual cycling of track switches is not normally employed to sustain passenger carrying operations."

The assertion that "provision of a device for manual switch operation is not a technological problem" is incomprehensible. It goes without saying that the switch is a mechanical device that under normal conditions will react in a given time. But being a mechanical device it is subject to failure including its propulsion system. Against this contingency manual operation is necessarily provided. If that not be so, why is a manual method of switch operation incorporated in the design?

Contrary to the assertion in PAT's above quoted answer, it is a technological problem to move the mechanisms involved in the indescribably huge device that has been designed to function as a switch. In addition, it weighs a reported 25 tons and is many times more costly than a conventional steel rail switch.

PAT asserts that there are "examples of manual operation of comparable devices, with reaction times of a minute or less". If true, which is doubted, why were these comparable devices not employed in the design of the switch at South Park instead of one that requires such an impractical reaction time as "approximately 10 minutes"?

The TERL plan contemplates unattended train operation on a 2 minute headway.

In the event of a switch malfunction, its occurrence must be apprehended at Central Control. When noted, Central Control must dispatch personnel to the site of the failure. Upon arrival at the switch site the personnel will require "approximately 10 minutes" to unlock, crank the switch into the required position and lock it. In the stretch from Downtown Terminal to the outer terminal at South Hills Village 15 trains will be operating during 16 hours of the day, spaced 2 minutes apart. In 10 minutes 5 trains have been blocked and the likelihood is that by the time the single switch malfunction is corrected the whole 10.6 miles of route will have come to a halt.

There is nothing extreme in the above description of what would be involved in a switch malfunction; it is the extreme of something to minimize the technological problem that the switch presents.

The significant part of PAT's answer above quoted is the statement that the "design of the manual cranking system is not a prototype design for the revenue line. Specifications for the revenue line are in preparation, but are not complete at this time." Obviously, all is not well with the switch.

When the South Park switch was installed and put through a few mechanical operations, Westinghouse went to considerable lengths to advertise the accomplishment in a manner designed to confound critics of the technology.

As is well known among experienced transit engineers and operators, the inability to design a practical and feasible switch has been a major obstacle to promoters of monorail technology. Inspection of the switch at South Park is evidence of the same problem confronting the SkyBus technology.

The time required to operate a conventional rail switch mechanically is of the order of 1 second, and less than five seconds to operate it manually. Unlike a steel rail switch, the TERL must be set for both facing and trailing train movements. Thus, in crossover operations, both switches must be operated presumably simultaneously which necessitates absolute control of train movements on both tracks. No movement of a steel rail switch is required for trailing operations. The evidence is clear that the switch at South Park falls far short of the specification of the MPC study that a switch be developed with a reaction time equal to that of a steel rail switch.

There will be 44 switches employed in the TERL design--22 located in 11 crossovers and the remaining 22 in stub-end reversing operations, the consist change yard, the storage yard and the maintenance yard.

Successful completion of design and testing of the automatic train operation equipment is equally as important as the development of an adequate switch. If TERL is to operate automatically and without on-board attendants, it is essential that the ATO equipment be thoroughly refined and tested. General Seedlock, in the aforementioned hearing, gave no indication that achievement of these objectives is in sight. In his direct testimony he said, "We have installed also a new and more sophisticated automatic train control system which is patterned after that being installed in San Francisco..."

It is common knowledge that the ATO at San Francisco (BART) has had severe problems that are not resolved at this time and that the contractor in that situation is the Westinghouse Electric Corporation.

General Seedlock was vague in his knowledge of the BART ATO problems but he did say he was planning a visit to San Francisco to learn first hand and from the BART people (as distinguished from Westinghouse Electric) what problems were being encountered and the prospects of their solution.

Of the performance of Westinghouse at South Park in the areas of ATO and a feasible switching device PAT can be "sure" only that unsolved problems remain and there is no prospect of an early solution.

Westinghouse sought to sweep these important unsolved problems of the SkyBus under the rug when it delivered the Preliminary Engineering Report in January 1970. PAT seeks to sweep them under the rug in pursuing the current application for Phase B of the Early Action Program.

No money for construction of TERL is justified until the South Park Demonstration Project is concluded in all of its aspects and the results evaluated.

(This report, as noted, is excerpted from the testimony of former Pittsburgh Railways president C.D. Palmer--recently removed from the PAT Board--at the hearing required by the Urban Mass Transportation Act on the SkyBus project. Future installments will be published in upcoming issues, beginning in two weeks.--EDITOR)