RURAL PUBLIC TRANSPORTATION IN VIRGINIA

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Travel in most rural areas is now confined to one mode: the private automobile. Those who cannot own or operate cars either do not travel or must arrange, sometimes paying high prices, for others to take them where they need to go. Public transportation should be made available to those in rural areas. This paper analyzes the rural transportation problem in Virginia and suggests how public transit systems can be developed and operated in rural areas of the state. A number of projects are reviewed that are in operation or are proposed for rural areas in other states. The study concludes that, although scattered, sufficient resources are available in Virginia for the planning and development of rural public transportation systems.

•MOBILITY in rural regions has almost always been limited to one mode: the private automobile. Most governmental attempts to increase the mobility of the rural populace have been confined to road development or improvement. Yet, certain groups—the poor, the young, the elderly, and the handicapped—derive few benefits from such programs. They are either unable to afford the purchase, maintenance, and operating costs of an automobile or incapable of driving one. Some are forced to own a car even though the cost of this ownership limits their purchasing power for other necessities.

Several states have initiated studies of public transportation in rural areas. This paper attempts to bring together information on identification of problems and goals, types of data needed, types of solutions, availability of funding, and organizational alternatives. Various solutions as they relate to situations in Virginia have not yet been tested.

PROBLEM

Some very basic human needs are not being met because of the lack of travel opportunities for many rural people. In our increasingly mobile society these individuals are, in a sense, being left behind. The physician, hospital, and health clinic are nonexistent to those who have no means of getting to them. Welfare programs such as food stamps or job training, educational, recreational, and religious facilities cannot be used by those who do not own an automobile and cannot afford to hire a taxi or have no family or friends who can transport them. Even obtaining essential goods like groceries and medication is difficult.

The Resource Management Corporation studied 5 rural areas and found that the poor in rural America make only 15 percent of the trips that the average American makes (1). Statistics for rural Virginia counties within the Appalachian region show that 30.6 percent of the households have no access to cars, one of the highest percentages in the entire Appalachian region (12). And in one somewhat typical case, a woman was found who owned no car, lived in a rented, dilapidated shack 15 miles from town with her 2 mentally retarded sons, earned $2,000 per year as a domestic helper, and spent $20 a week (or $1,000 per year) for taxi fare to town to pick up groceries and go to the welfare office. Obviously many rural residents of the state are suffering economically, socially, and physically because of their inability to travel. The lack of a car means that fewer trips can be made, which in turn decreases one's opportunities for self-betterment. The situation can almost be characterized as a downward spiral: The $10 paid an acquaintance to drive to the drug store is that much less money available for medication or food stamps.

Not only is the single individual or family harmed by the lack of transportation but so is the rural community as a whole. Because those persons lacking transportation cannot participate fully in the activities of their community, valuable manpower is going unused. The economy of most rural areas cannot afford the loss of the potential income of those who are unemployed because they have no way to get to jobs. Retailers lose business; taxpayers must pay relief for the unemployed; labor is not available, and fewer industries move into the region; those who are mobile (especially the young) leave for better job opportunities; even groups such as community volunteer organizations lose potential workers.

The loss of jobs is of particular interest in rural Virginia. Data from the Bureau of Labor Statistics show that the fastest industrial growth is in the South, particularly in small towns and rural areas (8). Many reasons account for this industrial growth: attitude of officials toward industry, lack of unions, low wages, and available labor supply. Unfortunately, Virginia's share of this growth has been small compared with most other southern states. According to a report in the Roanoke Times (8), "In terms of capital investment in new and expanded industry in 1972, Virginia trailed eight of the other ten Southern states. And growing industrialization has not yet made much dent in the poverty of cotton-belt blacks or Appalachian whites. Probably those groups will run behind the pack indefinitely. More will have to be done to help them catch up." Although not the only solution to Virginia's lag, public transportation in some form would certainly help make labor more available, thereby attracting firms to rural areas of the state.

Why all this fuss now over public transportation? Rural folk seemed to get along before without it. The most important reasons are urbanization and technology. With the improvement in the efficiency of farming techniques, the number of people dependent on farming has declined. In 1950, 3.8 million southerners were employed in farm work and 2.4 in manufacturing. In 1972, 1.5 million still were on the farm, but 4.4 million were in manufacturing (8). Instead of staying home and working their own land, the one-time farmers now must commute to factories or other places of employment. In addition, services are tending to congregate in certain locations. Less visible today is the county grocery store or rural family doctor. These functions are now found in the urbanized areas, especially in large shopping centers. The small rural businesses find it hard to compete and are forced out of business. Trips become longer.

A second reason for the present need of public transportation, especially for the elderly, is the decline of the extended family. Relatives do not always live near by and thus cannot be depended on for transportation. Sons and daughters leave early in life to find jobs and usually establish their homes in distant cities.

GOALS FOR A RURAL TRANSPORTATION SYSTEM

Before a rural transportation system is designed, goals must be established. Although the goals may vary somewhat depending on the characteristics or needs of the areas, most rural transportation systems should accomplish these basic goals:

1. Improve the mobility of those who cannot provide their own transportation;
2. Increase the poor person's income by offering low-cost transportation;
3. Provide a means for the rural poor, elderly, handicapped, and young to take advantage and receive the benefits of existing resources and opportunities, such as mental and health care, welfare programs, employment, job-training and other educational facilities, religious facilities, recreational and cultural activities, and shopping areas; and
4. Promote community interaction.

DATA AVAILABILITY IN VIRGINIA

Little information on the need for public rural transportation is now available in Virginia; that is most likely the case throughout the country. Most research and data collection has focused on metropolitan areas where funds have been available for such studies. Origin and destination surveys have been taken for Virginia's metropolitan areas (and for urbanized areas with populations over 3,500), but not for rural areas.

Even the U.S. census is biased toward the urbanized areas. Valuable transportation information such as means of transportation to work, place of work, income, and automobile ownership is available only for SMSAs, urbanized centers, census tracts, and unincorporated places of 1,000 inhabitants or more. The rural area researcher is interested in enumeration district data, which unfortunately include the more general information.

Some information is available at the county level, especially from community action agencies, welfare and health offices, and some planning districts. These agencies can give a general idea of the transportation needs of the region and have data on the number of individuals for whom transportation should be provided. Yet this information represents only the visible need and does not recognize those individuals who might not be in contact with the human resource agencies even though in need of transportation. Neither do we have good estimates of the latent demand for transportation services, which may be great.

The only coordinated data collection effort concerning rural transportation in Virginia was a questionnaire distributed by the Division of State Planning and Community Affairs to 6 state human resource agencies (Education, Health, Mental Hygiene, Vocational Rehabilitation, Welfare and Employment), 19 planning district commissions, and the cooperative extension agents in each county (20). The questions concerned existing programs or projects designed to provide rural public transportation, needed programs and their nature, and means of funding rural transportation. Although the questions were general in nature, the survey clearly indicated that little was being done about transportation problems in rural areas and action is needed.

That action will require more data including an inventory of potential public transportation facilities in every rural area, a survey of present travel patterns, and a survey of the transportation needs of the rural resident. (In 1973, the Virginia Highway Research Council started the latter 2 types of studies; volunteer interviewers from the particular rural area were used.)

POTENTIAL SOLUTIONS

A variety of ideas might be applied to help solve the rural transportation problem. Each idea, of course, is not feasible for every rural area, but depends on the characteristics of the region, such as available human and monetary resources, population density, and travel needs. Two or more systems could be used together. A number of options are available for the operation of each of these systems. They might be privately owned and operated for a profit. A cooperative may be formed with subscription service, or some governmental agency might be responsible for its operation. Again, the organization depends on the characteristics of the region needing the system.

Transit

Conventional Bus System—A conventional bus system has 30 to 60 passenger buses running on fixed routes and fixed schedules. A variation, which might be more feasible for low-density, rural areas, is periodic scheduling where buses serve different areas on different days of the week. Every citizen is then offered a dependable means of transportation at least once a week to the local town or closest urbanized area. In this manner capital and maintenance costs are kept low because of the small number of buses needed. Also, the system need not use new, expensive buses, but could use school or church buses, governmental surplus vehicles, or even old buses from urban areas that have acquired new ones under UMTA programs.

Minibuses—The minibus has a capacity ranging from 12 passengers in most vans to 25 in the larger models. Because of their low capital and operating costs, minibuses can operate on routes that are economically infeasible with conventional buses. Also, they can be more easily maneuvered on the narrow, rough roads near which many rural people live. Another potential use for minibuses is as a feeder system: Passengers are collected on the back roads and dropped off at waiting stations on the main routes where they are picked up by larger buses. Special designs could be made for the elderly and handicapped (10, 26).

Demand-Responsive Buses—No matter how small and economical the bus, the demand in many rural areas is too small and too scattered to warrant fixed schedules and routes. Demand-responsive systems may be more feasible. They use minibuses and offer door-to-door service as requested by telephone (4). In many situations, a 24-hour reserve-a-bus system for citizens may be more practical. If the rural area is characterized by low telephone ownership, the postal system may be more effective as a means of transmitting information concerning desired rides. Requests put in the mailbox during the day would be collected at the post office that night by a dispatcher who would then schedule buses for pickups and deliveries the following day. In some situations, the mail truck itself could serve as a passenger conveyence, as has been done in England. Other possibilities include the use of highway department, telephone, milk, and electric company vehicles.

Jitneys—The jitney is partially demand-responsive. It is usually a private passenger car or station wagon that travels basically one route but will vary it somewhat to offer door-to-door service. The jitney may offer reserved seating but more often cruises along until waved down by an individual desiring a ride. In urban areas no strict schedules are adhered to, but in rural areas a somewhat fixed schedule would be necessary because of the fewer number of jitneys traveling on the back roads.

School Buses—Most rural areas are served by a central school system, which usually has a fleet of school buses that generally are idle most of the day and could be used for other needed transportation functions. In addition to legal problems in most states, another difficulty is scheduling: School buses are available for nonschool purposes in the late morning and early afternoon, which is not when work trips are made. Part-time drivers for the short period of nonschool use would have to be found, and use during the off-peak periods might hinder maintenance operations in the bus garages. Despite these problems, the Virginia General Assembly has just passed a law allowing certain counties to use school buses for purposes other than the transporting of school children.

Rail—Rail transportation is extremely limited in its usefulness because of difficulties in scheduling and limited access to rail lines by many rural residents. In some particular cases, though, the railways might offer a feasible solution.

Personalized Modes

Taxis—Taxis, unlike jitneys, are completely demand-responsive. One problem with the taxi is that the practice of carrying only a few passengers makes the cost of using this mode prohibitive to many rural families. Yet, if subsidized or coordinated with other modes, the taxi could help in solving the rural transportation problem, especially for the following: (a) passengers who can split the cost of a taxicab that has been filled to capacity by a dispatcher-controlled operation; (b) service organizations that can pool resources and hire taxis by the day so that they do not have to purchase and maintain their own transportation system and in addition do not waste employee time by sending them out in departmental cars to pick up patients or other service recipients; (c) those requiring emergency services where ambulances or rescue squads are not readily available; and (d) intercity bus passengers who must rely on taxis to complete their trips.

Automobile—Although not all people in rural areas are located on good roads, most are at least on roads passable by car. Therefore, one solution is to provide cars to members of the rural population either through subsidies or extended loans, reduced prices, or outright donations of surplus vehicles to those who are able to drive on the condition that they take care of the transportation needs of those in the surrounding area too old, young, or handicapped to drive. Junk cars could be given to automotive-repair classes in the local school (or prison) for practice and then when repaired to needing families.

Car Pools—Car pools can be used not only for work trips but also for shopping or other trips. All that is needed is a major trip generator, a means of informing the public as to the pool's availability, and a way of processing trip offers and requests (15).

Vehicles of Community Volunteer Groups—In some rural areas, community groups volunteer their time and cars to provide transportation to those needing it. They usually

operate like a taxi company and publicize a telephone number to call to request transportation. Requests are filled according to the availability of cars and the nature of the need. Members take turns driving during the week and receive no payment for their services.

Other Solutions

Relocation—Relocating dispersed rural residents and congregating people moving into a rural area will ensure easier pickups by a transportation system serving the area. However, rural families may not want to move from their homes to more accessible locations.

Mobile Services—Instead of moving people to the services, services can be transported to the people. In areas where there are railways, trains can be used as an interagency service vehicle (16). On the train would be a general medical clinic, an X-ray machine for detecting TB, counselors in nutrition, family planning information, social security information, a dental clinic, legal services, and so on. The train would move to different locations as needed. On a less comprehensive scale, vans or tractor trailers can be used to take services to a central location in the community.

FINANCING

Although urban public transportation receives federal aid in the amount of approximately $1 billion a year, rural transit is virtually ignored by all major funding programs. State funds for such projects are even more scarce, but fortunately federal and state funds are slowly becoming more available. Discussed below are some potential and currently used sources of funds for rural transportation systems.

Federal

Department of Transportation—Until the Federal-Aid Highway Act of 1973, the transportation department's concern for public transportation was limited to urban areas. The 1973 act however specifically recognizes rural transportation in Section 147, which states:

> To enhance access of rural populations to employment, health care, retail centers, education, and public services, there are authorized to be appropriated $30,000,000 for the two-fiscal-year period ending June 30, 1976, of which $20,000,000 shall be out of the Highway Trust Fund, to the Secretary of Transportation to carry out demonstration projects for public mass transportation on highways in rural areas.

The funds can be used for projects such as the construction of passenger-loading areas and facilities and the purchase of passenger equipment other than rolling stock for fixed rail.

Revenue Sharing—Approximately $3 billion was appropriated in 1973 to the 50 states and more than 38,000 localities under the revenue-sharing plan. The guidelines for this program stipulate that these funds can be used for the capital, maintenance, and operating expenses for public transportation.

Office of Economic Opportunity—Although OEO has been the largest source of funding for rural transportation projects, it does not earmark funds for such projects. Instead local community action agencies (CAA) can request funds to be used for such programs in their general budget. These requests for aid generally cover the cost of transporting those in special programs, such as children in the Headstart Program. But funds can be made available for general transportation projects that are designed to assist low-income families, including the elderly poor.

Department of Agriculture—Funds may be made available for the development and operation of transportation systems through the Rural Development Act of 1972, but the specific guidelines have not been completed at this time. The language used in the act itself suggests that transportation projects might be eligible for funds as long as they facilitate development of private businesses in rural areas.

Department of Health, Education and Welfare—The Older Americans Act makes a

number of provisions for the transportation of the elderly. Under Title III, grants can be made available for transportation services where necessary to facilitate access to social services (Section 302), for special model projects that provide transportation for the physically and mentally impaired older persons (Section 308), and for special transportation demonstration projects (Section 412).

Also, under Titles I, IVA, X, XIV, and XVI of the Social Security Act, federal funds can be given to the states to ensure transportation for those eligible for the social service programs outlined in this act. The funds are available to the state on a matching basis—federal 75 percent and state 25 percent—and must be used for the payment of taxi or bus fares incurred by those eligible to receive assistance under the act. This money cannot be used as grant funds to develop or subsidize a transportation system.

Funds are also available to cover the cost of transportation to health facilities for those who receive Medicare funds (Title XIX). These funds are distributed to the states on a formula basis, the federal share ranging from 50 to 83 percent. The funds cannot be used for project grants.

State

Little coordination now exists among state human resource agencies in their attempts to provide rural transportation: Each provides its own funds to pay taxi and bus fares or uses its own employees to drive departmental vehicles. These efforts are costly in terms of both money and employee time and are only partial solutions in that the rural public generally cannot use these systems. One solution to financing, therefore, is to have all agencies use one public transit system. Each agency would pay the fares for those passengers connected with its program, and the income might be enough to subsidize an inexpensive transit system for the general public. Listed below are some potential sources of funding for such a system.

1. The Board of Vocational Rehabilitation has funds to pay taxis, though they could be paid to a rural transportation system on a prorated basis.
2. The Department of Mental Hygiene has no funds available except for those who are being committed to mental hospitals.
3. The Employment Commission through the Work Incentive Program (WIN) makes funds available on a prorated basis. WIN enrollees could be used as drivers.
4. The Commission on Visually Handicapped pays the fares of the blind to needed services and of the blind counselors to points of assignment.
5. The Office on Aging has funds available through the Older Americans Act and could make prorated funds available to transportation systems for the elderly.
6. The Department of Health has funds only for emergency ambulance service and Medicaid recipients. The high cost of the present alternatives limits this department's ability to fund transportation for those not eligible under the above programs.
7. The Department of Welfare and Institutions either includes transportation money in an individual's monthly public assistance grant or uses local agency cars driven by the employees, but could make funds available on a prorated basis to a rural transportation system.
8. Action funds RSVP, a federal program to organize elderly volunteers for projects that benefit the community, and has money available to cover transportation costs of the volunteers.
9. The Virginia Department of Highways and Transportation has funds available under the amended Transportation District Act of 1964, which allows local bodies or transportation district commissions to use state highway funds for transit facilities such as bus lanes, shelters, and possibly in the future buses. Upon approval by the State Highway Commission, these funds are used in lieu of proposed local road projects. Operational costs are not covered. Funds distributed to the state by the Federal Highway Administration can also, upon approval by the State Highway Commission, be used for capital costs of a transit system. As of July 1, 1974, buses may be purchased under this program. Although both of these laws were meant to be used basically to help solve the urban transportation problem, funds can be approved for rural systems if a strong case is made before the highway commission.

ORGANIZATION

Virginia has a number of options with regard to who should be responsible for the planning and development of a rural transportation system: The Virginia Department of Highways and Transportation, the Office of the Secretary of Transportation, or the Transportation Services Section of the Division of State Planning and Community Affairs has the capability. These agencies already possess the organizational skills necessary for planning and developing a rural system. Other options include the following.

Cooperatives

The people of rural areas could own and operate transportation cooperatives in a fashion similar to the highly successful rural electrification cooperatives, which provided power to local farmers when the electric companies found the profit margin too small to enter an area. The members would determine policies and operating criteria for the cooperatives, but would receive technical and planning assistance from the governmental body responsible for providing the service. This agency might be an existing organization or could be an agency set up specifically for this purpose. If funds were available, this agency might also provide low-interest loans to those cooperatives whose projects meet the approval of the agency. The advantage of this form of organization is that it combines technical and local inputs and places the planning close to the people who know local conditions.

Private Enterprise

A privately owned charter service should be an efficient operation, for it is guided by marketplace demands and is motivated by profit incentives. Unfortunately, most rural systems would not be money-making operations and would require some sort of subsidy. This aid could be given directly to the charter company (e.g., grants for capital equipment or deferred taxes) or could take the form of increased ridership by giving the rural poor money to be used for the purchase of transportation.

Public Corporations

A government-regulated corporation that provides transportation could be recognized by the state. Because it would be nonprofit and pay no taxes, this corporation would need less income than a private company to continue operation.

Transportation Districts

Like public corporations, these districts would be nonprofit and tax free and could issue bonds to cover the costs of operating a transportation system. Advantages of the districts are that the lawmaking provisions for their formation have already been passed and that they can use state highway funds for transit facilities.

Community Action Agencies

Since CAAs work closely with the local people, could make use of in-house skills and personnel, and do have some experience in the operation and funding of rural transportation systems, they might be used as the organizing body. This potential is dependent on the fate of OEO.

School Boards and Welfare and Health Offices

These organizations work closely with the local populace and are confronted with the rural transportation problem. A drawback, though, to their interests is that they are directed toward specific groups. A general public transportation system would be out of their jurisdictions.

SOME EXISTING APPROACHES TO THE PROBLEM

The approaches given here are probably the most successful. They, along with

others, will be discussed in a report to be released soon by the U.S. Department of Transportation.

One of the most interesting studies done on rural transportation was completed in 1969 by Burkhardt (1, 6). This study evaluates the impact of the free bus service that ran in Raleigh County, West Virginia, from September 1967 to May 1969. The project was funded entirely by grants from the Office of Economic Opportunity. Although discontinued because of termination of the demonstration funding, the system had the following impacts: (a) the average rider saved $8.94 a month in transportation expenses, (b) the extra trips made because of the free bus would have cost $2.09 per person per month otherwise, (c) the benefits from additional program participation (food stamps, welfare, Social Security) raised the rider's income by $8.12 a month, (d) the rider saved $2.55 per month by being able to travel to lower priced stores, and (e) an estimated $100 per year per person in health care was provided to many riders who received such care for the first time with the operation of the free bus.

The Mercer County (West Virginia) Community Action Agency uses 6 driver-education cars donated by a local car dealer to provide transportation for the poor within the community. The cars are distributed to individuals (usually the elderly) who have safe driving records and volunteer their time for driving. Those needing a ride call the volunteers at their homes and request a ride at some date in the future. No fare is specified, but contributions are requested to cover gas costs. The CAA provides the money necessary for taxes, licenses, and insurance. Besides being used for driver education and transporting the poor, the cars are also used for the hot-meal program in which food is distributed daily to those poor who are eligible for the program. The cars are also occasionally used for long-distance trips to large urban areas.

The Pride-in-Logan CAA, also in West Virginia, has set up a nonprofit contract carrier corporation using a CAA grant and short-term loans. The corporation's 7 minibuses are contracted at 30 cents per mile by programs such as Headstart and WIN and by the Board of Education (Expecting Mother Program) to transport recipients to and from training centers. The funds received from these charters are then used to "subsidize" free transportation offered to the poor and elderly. The drivers of the buses are WIN enrollees, who will receive, after their training period, a full-time salary for their work. Administrative costs are low because of the use of CAA personnel. This program is now realizing a profit and is expected to expand.

The West Virginia Department of Welfare will undertake a Transportation Remuneration Incentive Program (TRIP) to partially underwrite public transportation costs "to insure that low-income elderly and handicapped individuals can purchase transportation services deemed appropriate and necessary for their health and general welfare" (25). The program will operate like the food stamp program in that those eligible will be able to buy transportation stamps at less than their face value. These stamps can be used for all local trips; the transportation provider redeems them at face value at the local welfare office. The intent is to increase the consumer's ability to pay for transportation so that the existing transportation systems will find the rural routes more profitable. Where transportation services do not now exist in rural areas, funds will be made available to nonprofit agencies to develop such. Proposed funding will be from the state and the Office of Economic Opportunity.

Progress-on-Wheels is a program sponsored by the Northwest New Jersey CAA in which surplus General Services Administration and privately owned vehicles are coordinated to provide public transportation for this rural area. Funds were made available through OEO and by a community campaign, which collected trading stamps to be redeemed for cash. Vehicles include 2 vans, 8 sedans, and 3 station wagons. The program's emphasis is directed toward the elderly, and even 30 of the 32 employees are older persons. The operation is on a demand-responsive basis; the elderly phone in trip requests to the dispatcher at various POW offices. The amount drivers are paid depends on whether they own the vehicle, mileage driven, and time accrued. Most drivers prefer part-time work to keep their incomes below $1,680 a year, the amount above which they start losing their Social Security benefits.

The Green Eagle Rural Transportation Cooperative was formed when OEO made a grant through WAMY (the CAA for the Watuga, Avery, Mitchell, and Yancy counties of

western North Carolina) to study the feasibility of transportation cooperatives. In this rural area where the lack of transportation has always been a problem, residents could pay a $5 membership fee, which entitles all family members to ride on the bus. Membership reached a peak of approximately 530 members, and 4 cooperative buses operated within the region. Because of lack of subsidy, this system has now been discontinued.

SUMMARY

The rural transportation problem is slowly coming to light. Major groups of rural people are being identified who must have public transit to be mobile. Planners and governmental officials are realizing the effects of urbanization on the poor living in rural areas; one is that opportunities are now much farther away than they once were. Public transportation is needed by some individuals to get to those services and opportunities.

The resources necessary for the planning and implementation of rural public transportation systems are few and scattered. In Virginia, few data exist on the specific transportation needs of the rural poor, elderly, and handicapped. No coordinated state effort has been undertaken to determine where and how these people travel, where they would like to travel, how much they pay for transportation, and what opportunities are missed because of the lack of it. More research will be done as interest increases in this area. Although no agencies or organizations are responsible for public rural transportation in Virginia, a number of them could provide this service. Funds are not overabundant and are spread throughout many different sources, but they are there. More should be made available in the future, especially as the purposes for which federal and state highway funds can be used become more varied and as more agencies realize that there is a mobility problem in rural areas. The solutions are present; all that is needed is coordination, cooperation, and commitment to solving the rural transportation problem.

ACKNOWLEDGMENT

Sincere appreciation is extended to the members of Virginia Metropolitan Areas Transportation Study Commission, and especially to its chairman, John R. Sears, Jr., for their advice and support of this research. Also, the authors wish to thank the Virginia Highway Research Council for its time and effort in conducting a study of the rural transportation travel in the state. Finally, acknowledgment is given to all those organizations and individuals who so freely offered information for this report.

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