

Abridgment

National Survey of Metropolitan Bicycle-on-Train Programs and a Proposal for the San Francisco Bay Area CalTrain System

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An April 1987 study that explored the key elements of urban bicycle-on-train programs in North America, in order to analyze the feasibility of allowing bikes on the CalTrain commuter rail service between San Francisco and San Jose, is summarized in this report. In the course of the study, virtually every North American rail operator was contacted. It was found that 12 North American rail systems currently allow bikes during certain hours. A matrix, included with this report, provides quick comparisons of each operator's permit requirements, time restrictions, maximum number of bicycles allowed, and minimum age restrictions for bicyclists. Twelve aspects of bicycle-on-train programs are examined in separate sections of the text. Aspects include legal liability and claims, permits, time restrictions, and the process of boarding trains and storing bicycles. Most systems require permits, allow a relatively small number of bikes to be carried only during off-peak hours, and have had no problems with injuries or claims. Several alternatives to allowing bicycles on trains are discussed. The report concludes with a summary of the study's recommendation that another CalTrain bicycle-on-train demonstration program be allowed but only if a relatively unique local liability issue can be resolved without additional compensation to the contractor railroad. A limited number of bicycles would be allowed only during off-peak periods and only with permits.

Bicycle groups have long urged the San Francisco-San Jose CalTrain commuter railroad to allow standard, full-size bicycles on board its trains. A 4-month demonstration program in 1982 showed significant demand, but the program was not made permanent because the private railroad over whose tracks CalTrain operates would not agree to its continuation without substantial payments to cover perceived additional liability and claims exposure. Yet 12 North American urban and commuter rail systems now allow bicycles (up from two in 1980), and 400 bicycle lockers are in use at 18 CalTrain stations on the San Francisco Peninsula. In an October 1987 survey, 10 percent of CalTrain riders said they would "often" take a bicycle aboard CalTrain during off-peak periods if it were allowed.

In April 1987, CalTrain staff completed a 34-page study that examined the feasibility of a new bicycle-on-train program. The study looked closely at the elements of all 12 North American programs, as well as the unique local characteristics of the CalTrain service. Research methods included phone interviews with staff at virtually all North American urban rail systems, a literature review, an assessment of the 1982 CalTrain demonstration program, and a staff inspection trip to CalTrain rail cars with personal bicycles.

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A dozen aspects of bicycle-on-train programs were separately discussed in the study, which concluded with a short discussion of alternatives and a set of recommendations for a CalTrain program. The 12 aspects are discussed in the following paragraphs. System-by-system comparisons for some aspects are also presented in the matrix accompanying this report (Table 1).

- *Type of bicycle allowed.* Only nonmotorized bicycles are permitted. Some systems have dimension restrictions, including two systems with a 1 ft 10 in. width restriction that technically rules out wide-handlebar mountain bikes (unless bars are turned). But this rule apparently is not enforced.
- *Condition of bicycle.* Six systems require that bicycles be clean and free of sharp projections.
- *Station rules.* Most systems ban bicycle riding within station areas. Bicyclists must use either stairs or elderly-handicapped elevators for vertical circulation and cannot use escalators. New York area railroads require the use of stairs, the Washington and Miami Metrorail systems require elevators, and the Bay Area Rapid Transit District (BART) and Boston's "T" rapid transit systems allow use of either.
- *Boarding the train.* Nine systems restrict bicycles to specific cars on the train, with seven systems requiring use of the last car. Seven systems have high-level platforms that line up with car floors at every station. But on three systems heavily used by bicyclists, some or all stations have low-level platforms, requiring cyclists to climb car steps. This would also be true on the CalTrain system.
- *On-board bicycle storage.* Once bicyclists are aboard trains, all systems require that they hold their bicycles. At most properties, the storage area is close to the entry door. On rapid transit systems, bicyclists may sit down in a seat close to the door. On commuter railroads and the San Diego Trolley, bicyclists must stand up in the entry areas. For the CalTrain service, limited storage room in the entry vestibules led to the recommendation that bicycles be wheeled down the aisle and stored at the north end of the train. Most systems restrict the number of bicycles that can be carried per train. Four is the most common number; however, BART allows seven.
- *Time restrictions.* In general, North American bicycle-on-train programs are designed for off-peak users. Most rail properties believe trains are too crowded during rush hours to permit bicycles. "Off-limits" peak periods average 3 hr in the morning and 3 hr in the evening. Six systems allow early

TABLE 1 NORTH AMERICAN BICYCLE-ON-TRAIN PROGRAMS

SYSTEM	PERMIT					Max. # Bicycles/ Train	Min. Age (with older user)	TIME RESTRICTIONS					
	By Mail	Validity Period	Waiver	Photo ID	Fee			Early AM	Peak	Midday	Eve.	Sat.	Sun.
<u>Bay Area Rapid Transit District Oakland</u>	Yes	3 years	Yes	No	\$3	7 (last car)	14 (less)	OK before 6:30a	Some reverse commute only	OK 9:00a -3:30p	OK after 6:30p	OK	OK
<u>Metropolitan Transit Board/ San Diego Trolley Inc.</u>	No+	2 years	Yes	Yes	\$3	2 per car	16	OK before 6:00a	Not allowed	OK 9:00a -3:00p	OK after 6:00p	OK	OK
<u>Metropolitan Atlanta Rapid Transit Authority</u>	N/A	N/A	N/A	N/A	N/A	No rule (last car)	No rule	Not allowed	Not allowed	Not allowed	Not allowed except midnite -2:00a	OK	OK
<u>Metro-Dade Transportation Administration, Miami</u>	No	Un- limited	Yes	Yes	\$5	4 (last car)	16	Not allowed	Not allowed	OK 10:00a -4:00p	OK after 6:30p	OK	OK
<u>Washington, D.C. Metropolitan Area Transport Authority</u>	No	5 years	Yes	Yes	\$15	4 (last car)	16 (12)	Not allowed	Not allowed	Not allowed	OK after 7:00p	OK	OK
<u>Port Authority Trans-Hudson, New York City</u>	Yes	Un- limited	No	No	Free	2 per car	No rule	OK before 6:00a	Not allowed	OK 9:30a -3:00p	OK after 6:30p	OK except 7a-2p (east) 1p-7p (west)	OK
<u>Long Island Rail Road New York City</u>	Yes	Un- limited	No	No	\$5	4/ flexible (front & rear cars)	No rule	OK before 6:00a (west) 7:00a (east)	Not allowed	OK 9/10 am- 3/4 pm	OK after 7:00p (west) 8:00p (east)	OK except some blackout periods in summer	OK except some blackout periods in summer
<u>Metro-North Commuter Railroad New York City</u>	Yes	Un- limited	Yes	No	\$5	4 (north cars)	No rule	OK before 6:00a (south) 7:00a (north)	Not allowed	OK 9/10 am- 3/4 pm	OK after 7:00p (south) 8:15p (north)	OK	OK
<u>Massachusetts Bay Transportation Authority Boston (Rapid Transit Only)</u>	No	2 years	Yes	Yes	\$5	2 (last car)	16 (12)	Not allowed	Not allowed	Not allowed	Not allowed	Not allowed	OK except Thanks- giving to Xmas
<u>Societe De Transport De La Communaute Urbaine De Montreal (Rapid Transit Only)</u>	N/A	N/A	N/A	N/A	N/A	4 (last car)	16	Not allowed	Not allowed	Not allowed	OK after 7:00p	OK	OK
<u>Canadian Pacific Railway Company Montreal (STCUM Contract)</u>	N/A	N/A	N/A	N/A	N/A	No rule (last car)	16 (less)	Not allowed	Some reverse commute only	Not allowed	Allowed on certain trains	OK	OK
<u>Toronto Transit Commission</u>	N/A	N/A	N/A	N/A	N/A	*	No rule	OK before 6:30a	Not allowed	OK 9:30a -3:30p	OK after 6:30p	OK	OK

* Bicycles permitted at discretion of vehicle operator
 + Administered by American Youth Hostels

morning use, before the peak period (see Table 1). Two systems, BART and Montreal's CP Rail, permit limited peak period travel in the "reverse commute" direction. On BART, only one San Francisco station may be used during this period. Seven of the 12 systems permit bicycles during the midday period on weekdays, and 10 allow them in the evening. Eleven systems (all except Boston) permit some Saturday travel. All allow travel on Sunday, with some exceptions during holiday periods, for specific summer weekend trains and for four downtown Boston stations. The New York–New Jersey Port Authority Trans-Hudson Corporation (PATH) service does not allow Saturday use during times of peak shopping travel. A similar restriction in San Diego was recently lifted. Most systems reserve the right to ban bicycles from specific trains without notice in the event of crowding or for other reasons.

- *Permits.* Eight systems require permits to bring bicycles aboard trains. This includes all of the heavily used systems and all but one of the U.S. systems. Permits typically are required for three reasons: (a) to get cyclists to sign waivers, (b) to familiarize cyclists with rules, and (c) to allow properties to revoke the permits of problem cyclists. With one exception, permits must be obtained from a central location by mail or in person, which discourages out-of-towners or casual users. The one exception, BART, allows individuals to obtain a free 3-week pass once a year from station agents. American Youth Hostels sells all passes in San Diego and some passes in New York. In Boston it is necessary to obtain a pass during working hours, and in Washington, D.C., only one Saturday a month is set aside for pass processing, plus two weekdays. Fees and validity periods for permits are shown in the matrix (Table 1). Six systems require cyclists to sign waivers as part of the permit process (see *Legal liability*, next) and four issue a photo identification card, which must be displayed when on railroad property.

- *Legal liability.* A major concern of many U.S. rail operators, waivers form a key part of many permit agreements. Although there is no record of a single lawsuit or significant claim at any system, the potential always exists. Many waiver agreements have two parts: first, a release of liability for negligence on the part of the transit property and, second, an agreement to indemnify and hold harmless the transit system for the cyclist's negligence. Liability has been the main issue holding up a CalTrain bicycle-on-train program. A solution may now be at hand, on which local counties appear close to agreement, on use of self-insurance funds to cover any claims or lawsuits that might arise (the state will not indemnify private contractors). No transit system has a special insurance set aside to cover bicycle incidents, and claims personnel at key properties appear completely satisfied with current arrangements.

- *Bicycle fares.* Though bicycle fares are common in Europe, no North American system uses them. This may be partly because of the use of permits instead. In addition, most systems

have extra space to accommodate bicycles without revenue loss during off-peak periods. CalTrain, however, may implement a modest bicycle charge as security against conceivable minor claims.

- *Age restrictions.* Seven systems have a minimum age requirement for bicyclists, which is 16 years except for BART's, which is 14. However, on four systems, younger cyclists can travel with a cyclist of 16 years of age or older.

- *Disciplinary measures.* Line staff or police enforce most rules, although decisions to revoke permits are made by management. At BART, decisions on disciplinary measures, as well as other aspects of the bicycle program, are made by a monitoring committee of management and cyclists.

- *Marketing.* Marketing programs can reach two potential audiences: experienced bicyclists or the general public. Possible media for reaching experienced bicyclists include regulatory information and "how to" brochures, bicycle shop and bicycle organization outreach, and promotion by bicycle groups such as American Youth Hostels. Rider newsletter features and public service announcements are more appropriate for the general public. Which market to emphasize may depend on the ease or difficulty of occasional bicyclists using the particular system.

Four alternatives to bicycles on trains were examined in the study. Two involve more use of bike lockers. In one, individuals would be encouraged to own two bicycles and store one at each end of the trip. In the other, the state (or counties) would buy and lease bicycles for local travel, as is done at many Japanese rail stations. The other alternatives include encouraging more use of folding bicycles (allowed now), and a parallel bus or van service for bicyclists. No alternative seemed attractive to local cyclists, so they were not explored further.

Taking national experience and local conditions into consideration, the study concluded with a set of recommendations for a CalTrain bicycle-on-train program. These have since been adjusted slightly in consultation with a local county to accommodate the counties' proposed assumption of liability exposure.

The revised recommendations propose a 1-yr demonstration program, assuming final resolution of the liability issue. Permits would be used, chiefly because of tight on-train clearances and car steps that could result in injury or conflicts with other passengers. Only off-peak use would be permitted, and there would be a limit of three bicycles per train, stored initially in the aisle at the north end of the train. Because of the three-bicycle limit, cyclists at certain stations would receive preferred boarding, depending on the specific train. Finally, a 50 cent bicycle fare would be charged, with the aim of covering any minor claims that might arise.

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