



DEPARTMENT OF TRANSPORTATION

NEWS

URBAN MASS TRANSPORTATION ADMINISTRATION

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Secretary of Transportation Claude S. Brinegar today announced an \$8 million contract award to the Garrett AiResearch Manufacturing Company of Torrance, California, for the construction of an experimental prototype Advanced Concept Train. The two-car train is designated ACT-1.

The contract was awarded by the Department's Urban Mass Transportation Administration (UMTA), through the Boeing Vertol Company of Philadelphia, Pennsylvania. Boeing is Systems Manager for UMTA's Urban Rapid Rail Vehicle and Systems Program. The first element of the Program was for the design and manufacture of the State-of-the-Art cars (SOAC). SOAC, now under test, represents today's best available rapid transit car building technology. ACT-1 will develop improved vehicles utilizing advanced technology.

"The imaginative and innovative designs in the ACT-1 will benefit passengers, transit operators, and communities across the nation", Secretary Brinegar said. "This is an important advance in our program to improve American Urban rail transit systems." The UMTA Urban Rail Program represents the first significant expenditure of Federal funds for improving design and construction of urban rail transit equipment.

Frank C. Herringer, UMTA Administrator, noted that the ACT-1 contract resulted from a design competition among four industry teams. The winning design emphasizes passenger appeal with major considerations being given to ride comfort, and operating efficiency.

The Act-1 train is powered by a revolutionary energy storage flywheel propulsion system designed to conserve and better utilize electric power. By storing energy aboard the train itself, instead of dissipating it in wasted heat, the AiResearch system promises a favorable and significant impact on the nation's energy crisis.

During the braking cycle, energy that is normally wasted as heat is used to power flywheels on board the car. When accelerating, the power is drawn from the energy storage unit, reducing the demand from the third rail. During the constant speed portion of the run, the third rail power source supplies the energy needed to maintain vehicle speed and storage unit speed. The energy storage unit contains sufficient energy to move the train to a safe location in the event of a complete loss of the power source.

The car design incorporates a total modularized construction with maximum use of fire resistant and electrically non-conductive materials. The exterior panels are of durable, vandal resistant, acrylic material over an aluminum structure.

The cars will be delivered to the Department's High Speed Ground Test Center (HSGTC) near Pueblo, Colorado in 1975. Like the SOAC cars, the ACT-1 train will undergo a comprehensive series of tests at the Center before being demonstrated in revenue service on transit lines in Boston, Cleveland, Chicago, New York, and Philadelphia.

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For further information contact the UMTA Office of Public Affairs at (202) 426-4043.

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