

“ELECTROWAVE”

SHUTTLE REPORT

January 1998 - August 1998



Prepared: September 1, 1998

THIS REPORT COVERS THE FIRST 30 WEEKS
OF
SHUTTLE OPERATIONS
FOR THE
“ELECTROWAVE”



At the ***“ELECTROWAVE”*** dedication - (left to right) Commissioner Susan Gottlieb - City of Miami Beach, Representative Elaine Bloom - State of Florida, Representative E. Clay Shaw, U.S. Congress, Mayor Neisen Kasdin - City of Miami Beach, Gerald K. Schwartz, President - Miami Beach Transportation Management Association, Inc.

INTRODUCED
IN
MIAMI BEACH

JANUARY 29, 1998

GOALS & OBJECTIVES
OF THE
"ELECTROWAVE"
SHUTTLE PROJECT

- ✓ Reduce the number of single passenger automobiles in the South Beach Area.
- ✓ Create and support park & ride opportunities from existing parking facilities and lots.
- ✓ Provide frequent, convenient, safe, cost efficient shuttle system that connects with existing Miami Dade Transit System.
- ✓ Utilize energy efficient and environmentally safe transportation vehicles in the targeted service area.
- ✓ Provide transportation services during hours not traditionally served by transit.
- ✓ Encourage visitors to come to South Beach (People who live outside of Miami Beach who in the past would be discouraged from coming to area due to parking difficulties.)
- ✓ Encourage the use of the shuttle by tourists instead of the private automobile in the South Beach area.
- ✓ Provide alternative transportation to the area's employees and employers.
- ✓ Provide a valuable community service that supports every element of the community - residents, visitors, tourists, employers, employees, businesses, growth & development, community services, etc.

MANAGEMENT OF THE ELECTROWAVE:

On October 8, 1997 the City of Miami Beach contracted with the Miami Beach Transportation Management Association (MBTMA) to provide Contract Management Services for the ***ELECTROWAVE*** shuttle project.

What is the MBTMA?

The mission of the MBTMA is to actively contribute to the improvement of South Beach's and Middle Beach's transportation systems. The Association identifies problems and proposes solutions based upon transportation demand management principles. The Association also plans and implements programs aimed at improving local traffic and parking conditions and encourages and assists positive actions by others in both the private and public sectors. The Association undertakes its work in a manner that contributes to the area's economic and community development while being extremely sensitive to environmental concerns and the integrity of the historic district.

The primary goal of the MBTMA is to enable the area's businesses, citizens, community groups and City government to work effectively together with County and State Governments in developing and implementing solutions such as the ***ELECTROWAVE*** shuttle - toward a positive solution in dealing with the unique transportation problems of the area.

The following agencies, government entities, associations and area businesses are represented on the MBTMA Board:

- Miami Design Preservation League (Board)
- Miami Beach Chamber of Commerce (Board)
- Miami Beach Community Development Corporation (Board)
- Miami Beach Convention Center (Board)
- Fountainbleau Hilton Hotel (Board)
- Colonial Bank (Board)
- Mount Sinai Medical Center (Board)
- Miami Heart Institute (Board)
- Middle Beach Partnership (Board)
- City of Miami Beach (Board)
- David Haber, Esq. Resident (Board)
- Washington Square Partners Inc. (Board)
- City of Miami Beach Parking Department (Ex-Officio)
- Gold Coast Commuter Services (Ex-Officio)
- Florida Department of Transportation - District Six (Ex-Officio)
- Metropolitan Planning Organization - Miami Dade County (Ex-Officio)
- Miami Dade Transit (Ex-Officio)

The Board of Directors meets on the third Tuesday of every month, at 12 noon, in the Miami Beach Convention Center, Fourth Floor Conference Room. All meetings are open to the public.

Scope of Services for Contract Management of the *ELECTROWAVE*:

The MBTMA provides contract management and administration services for the City of Miami Beach for the *ELECTROWAVE* shuttle project as follows:

1. Provides contract administration for all aspects of the *ELECTROWAVE* project, including authorization and review of any and all expenditures related to operations, marketing, public relations, maintenance, and all other applicable expenditures.
2. Prepares all non-technical provisions for the *ELECTROWAVE* system, including verifying compliance with all Federal, State and local requirements.
3. Coordinates all functions necessary to procure operations, marketing, vehicle maintenance, and public relations. These services include the preparation of contract requirements, requests for proposals and bids (as required by funding agencies), project negotiations and recommendations.
4. Authorizes capital, operating, and marketing expenditures for the *ELECTROWAVE* Program, and submitting reviewed and approved invoices to the City for payment by the *ELECTROWAVE* budget.
5. Oversees configuration of management functions associated with the *ELECTROWAVE* project such as: Document Control, Change Requests, Change Control, Procedures Administration, and Project Management Plan Maintenance. Includes responding to request for *ELECTROWAVE* project records.
6. Prepares all information necessary for the development of Resolutions and the coordination of all information related to the project and service.
7. Custodian of all *ELECTROWAVE* records including coordination with Florida Department of Transportation, Dade County Metropolitan Planning Organization, Clean Cities Coalition, Florida Alliance for Clean Technologies, Florida Department of Energy, the Florida Department of Environmental Protection, and the International Council for Local Environmental Initiatives.
8. Researches, writes, and submits grant applications to seek funding on a continual basis for the purpose of supporting operations, marketing, *ELECTROWAVE* services.
9. Prepares and submits necessary reports to funding agencies as required.
10. Continues marketing the *ELECTROWAVE* system - maintaining, updating, and circulating materials, etc.
11. Monitors maintenance activities of each vehicle and submitting reports as required.

12. Monitors shuttle stop locations for effectiveness and operations efficiency.
13. Monitors shuttle safety requirements and documentation.
14. Responds to any and all inquiries concerning the service, schedule, route, etc.
15. Responds and deals with possible ridership complaints.
16. Designs and develops ridership surveys and produces analysis to monitor and evaluate effectiveness of service. (Ridership surveyed at the end of initial six months of operation.
17. Implements and justifies changes to the service as required for efficiency and quality management.
18. Monitors operations and quality of service on a daily basis.
19. Coordinates and conducts driver training and orientation sessions on a quarterly basis, or as needed.
20. Is available for formal presentations concerning the overall shuttle project, its development, and uniqueness.

Division of Duties Regarding *ELECTROWAVE* Project - MBTMA & City of Miami Beach:

The main duties of the Miami Beach Transportation Management Association, Inc. (MBTMA) and the City of Miami Beach regarding the *ELECTROWAVE* project are as follows:

1. MBTMA will administer all contracts and services related to the *ELECTROWAVE* project, including all capital, operations, maintenance, marketing and public relations items; will search for additional funding sources, and prepare grant applications to support the continuation of contracts and services.
2. MBTMA will have custody over and full use of the *ELECTROWAVE* project administration funds which will fund the administrative services to be provided by the MBTMA, on behalf of the City, as described above.
3. MBTMA will open a separate account for the transferred *ELECTROWAVE* funds and establish accounting procedures which are independent from the MBTMA budget.
4. MBTMA will file an expenditure/progress report with the City, on a monthly basis. This report will constitute an added but separate item to the MBTMA monthly report presently being filed with the City and FDOT.
5. MBTMA will authorize expenditures of the *ELECTROWAVE* funds under City custody, and will thoroughly review and approve all invoices received prior to submitting the invoices (with back-up documentation) to the City for payment.

6. MBTMA will abide by the procurement, permitting, and regulatory processes of the City of Miami Beach and the State of Florida, as applicable, and as the *ELECTROWAVE* program's main funding partners.
7. MBTMA will coordinate efforts with and receive input, as appropriate, from City, State, or County staff regarding physical installations being contemplated for the *ELECTROWAVE* route, park-and-ride facilities, causeways, etc.
8. CITY will have custody over the remaining *ELECTROWAVE* funds (capital, operating, marketing, contingency) and will perform the needed accounts payable, accounting, auditing services.
9. CITY, with MBTMA input, will prepare *ELECTROWAVE* items which require consideration and approval by the City Commission.
10. CITY above and beyond this Agreement and the *ELECTROWAVE* budget, is responsible for providing a temporary vehicle facility and park-and-ride lot for the *ELECTROWAVE* project.

SHUTTLE MAINTENANCE/OPERATIONS FACILITY:

A newly built charging and fleet maintenance facility at the cost of \$350,000 was constructed for the electric shuttle project by the City of Miami Beach. The facility was available for occupancy by the *ELECTROWAVE* on January 26, 1998.



Jim Tisdale, Vice President/Treasurer of the Miami Beach TMA explains the battery changing process to Mayor & Mrs. Neisen Kasdin, City of Miami Beach, and Costa Rica President Jose Figueres.

The prefabricated building was constructed on Terminal Island - location of the City of Miami Beach's Fleet Maintenance Facility. The building includes a special sealed foundation, ramps, electrical, plumbing, ventilation and installation of special chemical/environmental warning equipment, an operation's dispatch office, storage room and restroom facilities. Battery storage, changing and charging racks were constructed by an independent welding company for installation on January 16, 1998. A \$60,000 canopy/storage unit was donated by Florida Power Light Company and installed at the site. Battery charging equipment totaling \$150,000 was donated by the Florida Alliance for Clean Technologies in partnership with Florida Power Light Company.

In addition, the City of Miami Beach installed a large propane tank (adjoining the shuttle maintenance facility) for storage of propane for use in the vehicle's air conditioning system. This has saved the project a substantial amount of cost and time. Prior to official implementation, the vehicles were taken to North Miami for propane as there are no tanks or merchants located on Miami Beach that provide large quantities of propane.

THE VEHICLES:

In response to a Request for Proposals issued by the City of Miami Beach Purchasing Department - a total of seven (7) electric shuttle vehicles were purchased for the initial implementation of the system. Each vehicle met the following requirements and specifications at a cost of \$143,120 each:

Standard Equipment:

- AC Propulsion system
- Front Windshield Defroster
- Ribbed Rubber Flooring
- Custom Padded Wrap-around seating
- (1) Manual Roof Hatch
- Half Slider Tinted Windows
- Stop Request Chime
- Drivers Fan
- Ergonomic Drivers Seat
- Tow Bar
- Heating System
- Built-in Wheelchair Ramp
- Battery "Fuel Gauge"
- 216 Volt Lead Acid Batteries
- Battery Watering System

Additional Optional Equipment: \$ 45,780/per vehicle

- 70,000 BTU Air Conditioning System (Propane)
- Luminator Destination Sign (front/side)
- Spare Tire (Front w/rim mounted)
- Spare Tire (Rear w/rim mounted)

Optional Equipment: Continued

Additional Roof Hatch (Powered)
Spare Battery Pack
Sound System with Tape Player
Dispatch Radio

All exterior artwork was applied to the vehicles (prior to implementing the service) utilizing a vinyl computer generated transfer. Each vehicle has its own distinguishing artwork created by a chosen artist through the City's Art-In-Public-Places Committee. Each vehicle has the "**ELECTROWAVE**" logo on the entry door, interior acknowledgement of sponsorships (prominently displayed along the ceiling edges), and vinyl signage appears on the rear window of each vehicle stating that the shuttle is FREE. For the safety of passengers boarding the vehicles signage has also been placed on the lower half of each entry door stating "PLEASE STAND BACK."



Nelson Valenzuela, Administrative Assistant, MBTMA examines shuttle artwork being applied by the vinyl graphics firm. The colorful artwork was created by South Beach seasonal artist "CRASH."

A total of nine (9) specially constructed (heavy-duty) brochure racks have been installed along the seating area, on each vehicle. Presently, the racks hold information concerning the shuttle route, schedule, stop locations, parking lot locations, and community services and places of interest (police station, post office, city hall, Art Deco District, Wolfsonian, Lincoln Road, Ocean Drive, etc.). Work is now underway to sell six (6) of these racks on each bus to businesses - to generate funds for promoting the shuttle system in the future.

THE ROUTE & SCHEDULE:

The ***ELECTROWAVE*** is a two way circulator system (2.5 miles each direction) operating north and south along Washington Avenue between 17th and 5th streets -- one of South Beach's busiest corridors of shops, cafes, clubs, and other hot spots. At 5th Street, the shuttle loops south on Lenox Avenue to Alton Road and back on 5th Street. The route includes stops at both ends of popular Lincoln Road, and travels just a short walk away from world-famous Ocean Drive. The shuttle picks up passengers approximately every 10 - 12 minutes at 29 designated stops indicated with special shuttle signage. There are over 3,900 parking spaces in municipal lots along the route for visitors, tourists, and employees who drive into the area then take the shuttle to their specific destination.



Passengers board "***ELECTROWAVE***" at one of the popular stops along Washington Avenue.

All shuttle stop locations afford opportunity for passengers to conveniently transfer to Miami Dade County Transit buses to reach areas not served by the ***ELECTROWAVE***.

The ***ELECTROWAVE*** operates 365 days a year. On Mondays through Wednesdays the shuttle operates 8 a.m. to 2 a.m.; Thursdays through Saturdays from 8 a.m. to 4 a.m.; and on Sundays and holidays from 10 a.m. to 2 a.m.. The shuttle is FREE.

SHUTTLE DRIVERS/OPERATIONS:

ELECTROWAVE shuttle drivers are specially trained to deliver top-notch customer service and information about South Beach's activities, offerings and unique history.

In late November of 1997 the City of Miami Beach released an RFP for operations of the shuttle system. Through an intense screening process, Coach USA - Red Top was contracted to operate the system - providing trained, licensed drivers, dispatching services, along with vehicle and liability insurance for the system. Screening for qualified drivers began on January 12, 1998 with a total of 26 drivers hired to cover the three shift requirements of the system. On January 20, 1998 drivers began an indepth training program related to the unique driving requirements for electric vehicles to familiarize them with the route service area, its unique history and community services. The training and workshops were mandatory prior to final hiring and drug testing.

Drivers are supplied with uniforms (slacks and special print flamingo shirts) that coordinated with the City of Miami Beach Parking Department lot attendants. In addition, each driver was assigned a special identification name tag.



Specially trained "**ELECTROWAVE**" drivers prepare for first day of official operations.

Contests and reorientation/vehicle driving reviews are held on a quarterly basis - with prizes awarded for the longest distance driven on a single charge, safety, and customer courtesy. Turnover of shuttle drivers has been minimal.

VEHICLE SAFETY:

There have been 13 accidents involving the shuttle vehicles, with no reported physical injuries. Of the total number, only three incidents resulted in ticketing of the bus driver. In these instances, one shuttle driver was terminated and the other two were placed on temporary suspension at the discretion of the system's operations management at Coach USA, and at the request of their insurance carrier.

VEHICLE SECURITY & PASSENGER SAFETY:

ELECTROWAVE staff has worked closely with the Miami Beach Police Department to establish a system in which the shuttle's dispatch office contacts the police department in the event the driver is experiencing problems with passengers (gangs, drinking, destruction of shuttle property, etc.). In addition, the police department has recommended that strobe lights be placed on the top of each vehicle allowing the driver the ability to immediately alert the police that there is a problem on the shuttle (especially in the event the driver is unable to communicate to the dispatch office safely). The police department has worked with the shuttle staff to deal with problems that evolved near the end of the local school year in relation to vandalism by high school students who ride the shuttle at the end of the school day. An officer assigned to the high school worked with the school counselors to get the message out that the destructive vandalism would be subject to arrest and fines. In addition the police department staff has established a visible presence on the vehicles. Frequently, officers board the shuttle during the daily run to assure everyone that they are on top of any situation that may occur.

Another area of vandalism has been the removal of lettering on the interior of the vehicles (sponsorship recognition). Lettering is moved to form inappropriate words. A special plexiglass nonscratch surface is now being installed over the corrected lettering to prevent this situation in the future.

VEHICLE MAINTENANCE:

The City's Fleet Management Department is responsible for the mechanical maintenance of the seven electric shuttle vehicles. Staffing includes one Mechanic III and a Municipal Services Worker III for each of three shifts during a 24 hour period. Fleet provides preventative maintenance, makes necessary mechanical repairs (brakes, filters, etc.), coordinates special mechanical needs of the vehicles related to warranty and manufacturer requirements and upgrades. In addition, they are responsible for changing, cleaning, watering, and maintaining the batteries along with cleaning every bus on a daily basis. The manufacturer of the vehicles - Advanced Vehicle Systems, of Chattanooga, Tennessee has provided exceptional support for the needs of vehicles and recently extended warranty coverage for another year (unheard of in the transit industry).

It is important to note that no where in the country have alternative fueled vehicles experienced the environmental situations that this system has - such as high salt, heavy humidity, condensation, high air and road temperatures, along with extreme road use, higher than average passenger capacities and long continuous service hours. As a result, necessary modifications had to be made to all the vehicles with regard to the air conditioning system (upgraded - at manufacturers cost) and the electrical wiring configurations which were also upgraded by the manufacturer.

FUEL CONSUMPTION:

The use of electrically powered buses instead of traditional diesel has resulted in an extremely cost efficient and pollution free system.

Fuel Consumption: Continued

Specially trained shuttle drivers are now averaging 10 hours on a single battery charge. This assures an acceptable period of time for the swapped out battery's to rest and be maintained as required. The fuel rate is based on an average consumption of 39,085 KWH (Kilowatt Hours) monthly. The KWH rate is based on the industry standard rate established by Florida Power Light company (FPL) for use by the City of Miami Beach. FPL has established and confirmed the rate to be between \$2,083 and \$2,500 monthly. The monthly rate is contingent on the number of days in the month, weather conditions and maximum fleet use. This monthly rate also covers expenses related to full maintenance operations which involve electrical costs related to the vehicle maintenance and charging building (lights, fans, sensors, tools, etc.). weather conditions and maximum fleet use) for full fleet implementation and service.



Ed Brooks begins cleaning, watering and charging process for "ELECTROWAVE" batteries.

Comparatively...the average 19 passenger diesel bus has a travel range of 7 - 9 miles per gallon of fuel. Present fuel costs for diesel is \$1.27/per gallon.

Cost Comparison: (Example used is for 3 months of full shuttle operations.)

Diesel: 39,338 miles traveled by 7 shuttle vehicles ÷ 8 miles per gallon of diesel fuel = 4,917 gallons of diesel x \$1.27/gallons = \$11,162

Electric: 39,338 miles traveled by 7 vehicles over 3 months @ \$357.14/per month/per vehicle/per kwh = \$2,500 x 3 months = \$7,500.

Cost to fuel diesel vehicle for 3 months	=	\$ 11,162
Cost to fuel electric vehicle for 3 months	=	\$ 7,500

The ***ELECTROWAVE*** project has been totally dependent on donated advertising, such as newspaper, magazine articles, television and radio stories, etc. No advertising is purchased to promote the shuttle service and its day-to-day operations. Expenses have been limited to development of logo, artwork, brochure design, and marketing collateral.



Colorful **ELECTROWAVE** brochures with route map, stop locations, general information about the route and area, a listing of project funding sources, and information about the new technology (electric shuttles) were printed in quantities of 250,000. Major initial distribution of the brochures was conducted the week prior to the systems implementation to businesses, hotels, convention center, Chambers of Commercences in both Miami Beach and Miami, etc. In addition, **ELECTROWAVE** stationary and business cards were designed and printed to be used in the press kits, and daily correspondence.

Other donated and extremely valuable opportunities for promoting and advertising the **ELECTROWAVE** include:

- WELCOME Magazine includes a full color map and shuttle schedule with identifying logo in each issue (the magazine is distributed in most hotel rooms in Miami and Miami Beach as well as other tourist/visitor sites).
- TOPA displays the logo on all programs along with shuttle information
- **ELECTROWAVE** brochures are distributed to convention groups through the Miami Beach Convention Center and the City of Miami Beach's Special Events Department.
- The shuttle route and general shuttle information is included in City of Miami Beach Parking Guides separately and as the centerfold in the Miami Beach Chamber of Commerce Visitor's Guide.
- The shuttle logo is displayed on the front window over 75% of the businesses along Washington Avenue and Lincoln Road which support the system .
- Brochures are displayed in a special rack on the Lincoln Road Tram.
- On a quarterly basis, a supply of shuttle brochures are distributed to merchants and hotels along Washington Avenue, Lincoln Road, Ocean Drive, and Collins Avenue.



011

- Special inserts about the shuttle have been included in:**

- Special articles and feature stories have appeared in:**

- Miami Herald several front page stories
- Ocean Drive Magazine
- Art Deco Magazine
- Sun Post
- Miami Today

Electronic shuttle exceeds Miami Beach's expectations

SHUTTLE, FROM 3

The shuttle heads west on 17th to Alton Road and completes a loop south on Washington Avenue back to the beginning. Officials expected tourists jam into the small shuttles during last month's boat show, but once the show ended, even more people caught the ElectroWorld. Evans said, "We had 21,000 people in the park the week of the boat show. The traffic was terrible."

Officials expected to be taken into the small shuttle bus during last month's boat show. Because the show ended, even more people caught the ElectroWave, Evans said.

About 21,000 people hopped the bus during the week of the Miami International Boat Show. But after the show sailed away, ridership jumped to nearly 23,000 a week.

So many people are riding the

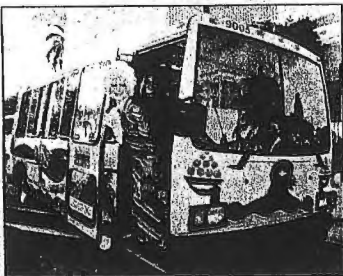
shutes that an extra stop was added on Alton Road across from Epicure, 1636 Alton Rd., a market filled with gourmet goodies.

The association recently signed an agreement with Miami-Dade Transit to provide Evance up to 45¢ Street, but Evance couldn't provide an exact date when the ElectroWave will head north.

The ElectroWave has hit a few bumps along the road to its success. Just days after it took to the road, severe weather knocked out electricity at a station where the batteries are recharged, forcing a delay in service.

And during the Boat Show, bumped into a car, fore-

Adorable unveiling



ONE OF MIAMI BEACH'S most popular residents, Adora, helps unveil a new shuttle bus Friday. The bus began regular duty on South Beach during the weekend. It's part of a new electric bus system that's cheaper and cleaner to operate.

FLORIDA TODAY 2/3/98

A New Wave Coming to Miami Beach

[illegible]

...decorated and
...South Beach lifestyle
...and ending from 2 to 4 a.m.

...selected to wrap each bus in striking designs. One by noted Cuban artist Jose Bedia shows distorted Picasso-style figures in-line skating and cruising in a convertible against a yellow-green background. Another unusual feature planned for the South Beach Art Fair is a "Transit Art" tour, which will take visitors to various art installations throughout the city.

but between 5 a.m. and 8 a.m. and the electric bus will closely mirror the South Beach lifestyle. It will start relatively late in the day and run into the wee hours of the morning: 8 a.m. to 2 a.m. Monday through Wednesday; 8

a.m. to 4 a.m. Thursday through
Saturday, and 10 a.m. to 2 a.m.
Sundays and holidays.
Buses will depart from the 17th
Street garage and run to the
Fifth Street, the
to the South, the
and bar
will

the main beach approach
head for
district. On Fifth, buses
to Alton Road, where
they will run back up to 17th
street.

To make the South Beach bus a
more alluring, it will be free
at least for the foreseeable
future, Evans said.

She is trying to lure hip car-
poolers, too. The project also is aimed
at South Beach's perennial
problem and traffic con-
gestion.

work," said Elizabeth
Harris, a South Florida
often visits South
Beach and "to make
it more attractive to
the public."

Advertising: Continued

- Washington Post
- Ft. Lauderdale - Sun Sentinel
- Palm Beach News
- El Nuevo Herald
- Miami Metro Magazine
- Hola Amigos
- Art Deco Tropical
- Miami Beach Hola Amigos
- Beach News
- EV Ready Broward
- Meeting News
- Tropical Tribune
- Kendall Gazette
- SCATRAX (Southern Coalition for Alternative Transportation - World Wide)
- Hi-Riser
- Florida Today
- Clean Fuels Florida



ADVERTISING REVENUES:

Development of an RFP is presently underway to begin the process of selling advertising space on the vehicles. Six brochure racks on each vehicle will be available as well as ceiling space to businesses for individual use through a rental agreement. In addition, the rear windows of each vehicle will be sold under a seasonal package. Revenue generated from advertising will be placed into the **ELECTROWAVE** operating/marketing account to cover future expenses.

"ELECTROWAVE"

SERVICE PERFORMANCE REVIEW

The following is a performance review for the *ELECTROWAVE* shuttle project as of August 31, 1998:

Official Shuttle Operations Start Date:	January 27, 1998
Total Vehicles In Present Service Fleet:	Seven
Total Vehicles In Use For Route:	Seven in rotation (5 in full service)
Passenger Capacity:	Seating: 22 Standing: 10
Route:	2.5 miles each way 45 minutes in length 29 designated/signed stops
Ridership As Of August 23, 1998	883,203 (one way trip)
Total Shuttle Miles Traveled As Of July 31, 1998:	63,198
Average Daily Ridership:	4,462
Average Monthly Ridership:	117,812
Heaviest Passenger Pickup = Northbound Southbound	Washington Ave/5th Street Washington Ave/Lincoln Road
Heaviest Passenger Dropoff = Northbound Southbound	Washington Ave/16th Street Washington Ave/5th Street
Total Vehicle Accidents:	13
Total Vehicle Accidents EW Driver Ticketed:	3
Average Length of Time On One Charge:	9 hours
Average Distance On One Charge:	28 miles
Average Length Of Time For Complete Battery Swap:	20 minutes

"ELECTROWAVE"

EXPENDITURE REVIEW

**1997/98 Budget Year
&
Proposed Budget for 1998/99**

Not only has the shuttle ridership exceeded expectations and projections, but the 1997/98 budget features a healthy cash carry-over, of approximately \$820,000, that will be applied against FY 1998/99 expenses. Therefore, the expected FY 1998/99 City contribution is proposed to be only \$450,000 in Resort Tax Funds, down from approximately \$800,000 contributed last year. The projected cash carry-over includes mostly State funds, which are being rededicated to the ***ELECTROWAVE*** project by the Florida Department of Transportation (FDOT).

- ▶ The City's proposed \$450,000 contribution in Resort Tax Funds, or 27.9%, is receiving a tremendous return from FDOT which is investing the following funds, or 68.8%, toward the FY 1998/99 ***ELECTROWAVE*** project:
 - * \$1,108,969 (\$808,969) in cash carry-over plus an additional \$300,000 in cash funds toward the proposed operating budget
 - * \$248,125 in Toll Revenue Credits as a "soft" match to the \$992,500 in FTA Section 3 capital funds earmarked in the FY 1996-97 U.S. Transportation Appropriations Budget for ***ELECTROWAVE*** capital purchases, FDOT's willingness to produce this soft match has relieved the City from its obligation to produce a cash match to these Federal funds
- ▶ The City is seeking County approval to charge a 25-cent fare for the ***ELECTROWAVE*** service. The hiring of a bonded company to handle the fare proceeds may cost \$54,000/year or more. This cost could be covered by a combination of the "contingency" and "other operating" categories of the proposed FY 1998/99 operating budget. A fare cannot be instituted immediately for the following reasons:
 - * It requires the approval of establish legislation to effect a change in the County Code, which presently requires that other Miami-Dade transit services charge the same as MDTA, at \$1.25 regular, and \$.60 per senior/student. The deadline to receive County Commission agenda items is two months prior to the meeting date.
 - * The City needs to resolve all security issues associated with fare collection, such as the provision of a secure room/vault that is available 7 days a week to a bonded company which would count, log, and bag the fare proceeds, prior to deposit in a designated bank account. The Parking Department "secure room vault" is closed on weekends and holidays, when the ***ELECTROWAVE*** ridership is intense.

Budget: Continued

- ▶ Based on present ridership counts, the implementation of a 25-cent fare could generate at least \$300,000 in gross revenues in 12 months. The City Administration and the MBTMA do not recommend a 50-cent charge, at least initially (fare would be reviewed upon implementation of additional routes).
- ▶ Federal transit rules require that farebox revenues be used to offset transit operating costs, and prohibit their use to offset the required "local" match to Federal and/or State funds that have been awarded to any given transit project.

The following is a comparison between present and proposed **ELECTROWAVE** budgets and expenses:

Budget Categories	FY 1997/98 Inception Budget	FY 1997/98 Projected Expenditures (9 mos. service)	FY 1997/98 Projected Carry-over (12 mos. oper.)	FY 1998/99 Proposed EW Budget
Capital Acquisitions	\$ 78,750	\$ 78,500	-0-	-0-
Red Top Charges	991,510	568,510 (9 mos)	\$ 423,000	\$ 774,000
Fleet Maint. Charges	477,419	245,823	231,596	478,000
MBTMA Proj. Admin.	95,714	95,714	-0-	95,700
Marketing	119,509	118,500	-0-	80,000
Electricity (batteries)	16,000	16,000 (7 mos)	-0-	50,000
Misc. Operating	62,278	32,400	29,878	35,769
Uniforms (drivers)	3,888	2,618	762	6,000
Communications (9 radios)	-0-	7,560 (6 mos)	(7,560)	22,000
One Cell Telephone	-0-	200	(200)	-0-
Contingency	142,418	-0-	142,418	70,000
FY 1997/98 Totals:	\$1,987,478	\$1,166,065	\$ 820,902	

FY 1998/99 Proposed Operating Budget\$1,611,469*
 FY 1998/99 Proposed Capital Budget (FTA funds with/FDOT "soft" match): 992,500**
 FY 1998/99 Proposed **ELECTROWAVE** (JPA) Capital & Operating Budget: \$2,603,969✓

* FY 1998/99 capital acquisitions would be made using Federal funds exclusively, pending City Commission approval. Purchase of four additional electric shuttle vehicles and equipment to be used as "rolling stock."

** A Supplemental JPA between the City and FDOT for the FY 1998/99 **ELECTROWAVE** Capital and Operating Budget will be submitted for City Commission approval at the September 23rd meeting.

✓ Note that the proposed FY 1998/99 **ELECTROWAVE** operating budget includes additional operating costs at approximately \$3,500 a month to cover added vehicle insurance coverage, electricity, and radio costs. In addition, its "other operating" and "contingency" categories may be used to cover the cost of hiring a bonded company to handle fares.

Budget: Continued

As previously stated, the proposed \$450,000 City Resort Tax contribution toward the operating budget is significantly reduced from the \$1.8 million contributed within FYs 1996/97 and 1997/98, for capital and operating expenditures.

The proposed funding sources for the upcoming **ELECTROWAVE** Operating Budget are as follows:

FDOT carry-over funds from FYs 1996-98 JPA* w/City	\$ 808,969	68.82% FDOT
FY 1998/99 FDOT contribution	300,000	†
Estimated City carry over funds from 2 yr. JPA/FDOT	12,000	27.92% City RT
FY 1998/99 City Resort Tax match to State funds	300,000	†
Additional Resort Tax contribution to fulfill budget needs	138,000	†
Int. Cities for Local Environmental Initiatives grant	12,500	3.26% Misc.
Projected on-board advertising revenues	<u>40,000</u>	†
Proposed FY 1998/99 funding total:	\$1,611,469	

The presently projected cash carry-over of approximately \$820,000 (mostly in FDOT funds) is due to the following reasons:

1. The **ELECTROWAVE** project has been in operation less than nine (9) months.
2. MBTMA's budget-conscious approach to program expenditures and route control has kept costs down.
3. To date, the City's Fleet Maintenance has been unable to hire a full contingent of mechanics, as budgeted..
4. A slight overbudgeting in the first year of operations, due to the use of new technology.
5. Certain expenses began to be incurred in March (when FPL connected the electric meter) or April (monthly cost of on-board radios).

Looking into the future to FY 1999-2000, there may be no carry-over funds from the FY 1998-99 Supplemental Joint Participation Agreement (JPA) to be executed in the near future by the City and FDOT for the **ELECTROWAVE** Budget. However, we anticipate that other sources of operating funds will come into play, above and beyond the traditional FDOT contribution/City Resort Tax match, as follows:

- * The **ELECTROWAVE**'s share of the National Transit Data Fund, at approximately \$100,000.
- * A share of the new Transportation Block Grant Fund, approximately \$50,000.
- * A new Department of Energy grant, approximately \$200,000.
- * Farebox revenues of at least \$150,000 (six months).
- * NOTE: potential, locally-created funding sources, such as increasing revenues from advertising, dedicated parking revenues, mitigation plan proceeds, transit assessment districts, one cent on the sales tax, etc., can be used to offset the amount of Resort Tax to be contributed annually by the City.

"ELECTROWAVE"

PASSENGER PROFILE

The Miami Beach Transportation Management Association, Inc. (MBTMA) recently concluded a three-part survey as a part of its ongoing passenger profile study. The survey was conducted in June & July of this year. The following is the result of 449 verbal surveys that were conducted between ***"ELECTROWAVE"*** passengers and the survey staff:

It is important to note that this survey was conducted during a non-peak tourist/visitor season. The shuttle did not begin full operations until the end of peak season.

1. 77% of the passengers surveyed stated this was not the first time they had used the shuttle service. This number increased to 80% and 82% in two successive surveys.
2. 81% of the passengers resided in Miami Beach. Of the 19% visitors, 10% were Floridians and 90% were tourists (domestic and International).
3. Of the 81% who reside in Miami Beach, 61% leased or did not own a vehicle, 24% had left their vehicle home and used the ***"ELECTROWAVE"*** for their commuting needs.
4. 26% of the ridership was visiting the area, 24% were shopping, 12% used the shuttle for traveling to and from work, 11% for personal business. The remaining percentage of riders used the shuttle for transportation to entertainment, school, dining as well as touring the area.
5. When asked what they would do without the shuttle service, passengers responded with 37% walking, 46% would utilize other modes such as a private vehicle, taxi, public transit (if applicable) or ride with someone. (It is interesting to note that the impact to MDTA fare revenues along the shuttle route has been reported by MDTA officials as 1/20th of 1%.
6. 100% of all surveyed felt the shuttle was a convenient way to travel in the South Beach area.
7. 52% of the ridership utilized Metro Dade Transit for extended commute needs when convenient, 48% remained in the area. This indicates that the shuttle is generating new transit users.
8. 77% of the ridership requested more electric shuttle vehicles with more frequent stops.
9. 99% felt the hours of operations were acceptable.
10. 75% wanted more shuttle stops added to the system.
11. 33% wanted shuttle service expanded to Alton Road/West Avenue, 36% requested service on 41st Street, 18% wanted a route to South Pointe, with 12% requesting service along Collins Avenue.
12. 53% of the ridership was willing to transfer from one shuttle vehicle to another at specific points to reach their destination.

Passenger Profile: Continued

13. 97% felt the shuttle drivers were extremely pleasant, friendly, courteous, and knowledgeable about the area and concerned for passenger safety.
14. 22% of the ridership stated that they would use a special shuttle parking lot for their private vehicle if it were available. 76% stated they were not sure - depended on the lot location and shuttle frequency.
15. 90% of the ridership surveyed was 22 years of age or older.

INTERESTING SURVEYOR OBSERVATIONS:

1. Elementary school children are using the shuttle to attend and return home from school - normally their parents would be driving them to the school. (Note: The shuttle stops in front of two elementary schools.)
2. Senior citizens are using the shuttle for visits to the pharmacy, post office, City Hall (utility bills) and general shopping. A considerable number had been driving to these locations.
3. Families are using the shuttle during the early evening hours for visiting area restaurants and shops and to visit the beach - instead of using their cars.
4. Visitors to the Miami Beach Marina and evening diners at Monty's are now parking in the nearby parking lot and walking to the shuttle stop at 4th Street to reach Lincoln Road for mall-walking and shopping instead of driving to the 17th Street garage.
5. Businesses along the shuttle route (especially along Washington Avenue) are using the shuttle to conduct business - such as the post office and banking.





First Official Shuttle Passenger - "Adora"



Officials enjoying the "ELECTROWAVE" Dedication
(Left to right) Bob Suggs, Manager - FPL Electric Transportation Program, "Adora," Commissioner Nancy Liebman - City of Miami Beach, and "Jasmin"



FDOT Officials (left to right) Ed Carson and Carl Filer enjoy the "ELECTROWAVE" dedication activities with MBTMA Executive Director, Judy Evans - FDOT Public Transportation/Intermodal District Manager, Rene Rodriquez - City of Miami Beach Transportation Coordinator, Amelia Johnson, and FDOT Director of Planning and Programs - Gary Donn



MBTMA Transportation Coordinator, Rebecca Schwartz watches as Representative Elaine Bloom, State of Florida and Gary Donn, FDOT Director of Planning & Programs "launch" one of the "ELECTROWAVE" shuttles.....



"ELECTROWAVE's" 100,000th passenger Mr. Joaquin Sebastian being congratulated by MBTMA Executive Director Judy Evans and MBTMA President Gerald K. Schwartz during the first week of April 1998.

AS OF AUGUST 30, 1998 OVER 913,043 PASSENGERS HAVE USED THE "ELECTROWAVE"



ELECTROWAVE

PASSENGER COUNT



(Most recent report follows)

"ELECTROWAVE" PASSENGER COUNT
ACCUMULATIVE REPORT - 1998

DATE	WEEK	9001	9002	9003	9004	9005	9006	9007	Red Top	Weekly Total	Passenger Count To Date
1/27 - 2/01	1	1,287	826	1,562	1,235	919	1,001	678	N/A	7,508	7,508
2/02 - 2/08	2	2,271	2,372	1,946	853	2,189	2,124	2,431	N/A	14,186	21,694
2/09 - 2/15	3	4,649	3,332	3,591	352	2,889	5,184	1,364	N/A	21,361	43,055
2/16 - 2/22	4	0	4,649	4,076	3,871	965	4,774	4,652	N/A	22,987	66,042
2/23 - 3/01	5	0	4,119	4,209	5,148	2,920	3,624	3,775	N/A	23,795	89,837
3/02 - 3/08	6	4,147	3,924	4,286	4,379	3,761	4,700	0	N/A	25,197	115,034
3/09 - 3/15	7	5,776	2,081	4,759	3,668	1,274	4,889	4,755	N/A	27,202	142,236
3/16 - 3/22	8	3,736	4,960	4,716	3,738	854	5,182	3,060	N/A	26,246	168,482
3/23 - 3/29	9	5,596	4,790	1,064	4,150	4,469	4,381	4,879	N/A	29,329	197,811
3/30 - 4/05	10	4,479	3,468	5,164	5,483	3,702	5,491	3,222	N/A	31,009	228,820
4/06 - 4/12	11	4,643	4,171	4,667	5,515	4,346	5,561	1,164	N/A	30,067	258,887
4/13 - 4/19	12	4,727	3,554	4,929	5,031	4,647	5,280	1,519	N/A	29,687	288,574
4/20 - 4/26	13	4,639	5,004	5,348	4,951	4,791	6,077	1,741	N/A	32,551	321,125
4/27 - 5/3	14	4,941	5,439	5,581	5,248	O/S	4,666	4,475	N/A	30,350	351,475
5/4 - 5/10	15	4,873	7,014	6,902	4,943	2,416	2,672	5,248	N/A	34,068	385,543
5/11-5/17	16	2,481	5,037	6,072	5,435	5,970	1,764	3,862	N/A	30,621	416,164
5/18-5/24	17	3,615	3,091	4,702	5,270	4,937	687	6,318	4,984	33,983	450,147
5/25-5/31	18	2,492	2,944	5,309	4,164	5,080	4,875	2,305	1,566	28,735	478,882
6/1-6/7	19	3,557	5,917	5,485	5,815	5,615	4,529	2,824	1,035	34,777	513,659
6/8-6/14	20	0	3420	4016	5141	4758	4712	4765	4944	31,756	545,415
6/15-6/21	21	5110	5369	5550	4759	4873	4234	3946	6684	33,841	579,256

**"ELECTROWAVE" PASSENGER COUNT
ACCUMULATIVE REPORT - 1998**

DATE	WEEK	9001	9002	9003	9004	9005	9006	9007	Red Top	Weekly Total	Passenger Count To Date
06/22/98-06/28/98	22	5046	4530	5605	3859	O/S	4835	5391	6691	35,957	615,213
06/29/98-07/05/98	23	5255	3393	3517	4682	O/S	4546	5947	8731	36,071	651,284
07/06/98-07/12/98	24	4859	4924	1279	4981	2870	5282	4992	5190	34,377	685,661
07/13/98-07/19/98	25	4744	4585	4696	4876	5819	5787	4224	-0-	34,761	720,422
07/20/98-07/26/98	26	4438	5079	5679	2253	5117	5125	5418	-0-	33,109	753,531
07/27/98-08/02/98	27	3990	6510	1815	4484	6208	5282	4330	-0-	32,619	786,170
08/03/98-08/09/98	28	2346	5081	5164	5470	5727	4553	3628	-0-	31,969	818,139
08/10/98-08/16/98	29	4550	4678	5040	5024	5285	5332	3919	-0-	33,828	851,967
08/17/98-08/23/98	30	5000	4825	5698	4257	4651	5248	1557	-0-	31,236	883,203
08/24/98-08/30/98	31	5240	-0-	5061	5868	2891	5238	4367	1175	29,840	913,043
08/31/98-09/06/98	32	5727	-0-	5781	5658	6297	3797	5307	5307	32,567	945,610
09/07/98-09/13/98	33	4894	3457	4624	2279	5128	4035	4165	-0-	28,582	974,192
09/14/98-09/20/98	34	4640	5531	4105	1326	4514	4650	5639	-0-	30,405	1,004,597
09/21/98-09/27/98	35	3126	4138	3031	-0-	3607	3180	3697	-0-	20,779	1,025,376
09/28/98-10/04/98	36	5312	5370	6099	1063	4784	3206	4327	-0-	30,161	1,055,537
10/05/98-10/11/98	37	4065	5625	4864	5242	93	3700	6063	-0-	29,652	1,085,189
10/12/98-10/18/98	38	3940	4418	4707	5572	3225	3898	3816	-0-	29,576	1,114,765
10/19/98-10/25/98	39	4164	4617	4677	4736	4555	4932	-0-	-0-	27,681	1,142,446
10/26/98-11/01/98	40	5024	3050	4905	4673	4884	460	-0-	-0-	27,738	1,170,184
11/02/98-11/08/98	41	3834	4015	4520	4775	4325	612	3488	-0-	25,569	1,195,753
11/09/98-11/15/98	42	4136	4318	4300	5716	5060	-0-	4756	-0-	28,286	1,224,039

***"ELECTROWAVE"* PASSENGER COUNT ACCUMULATIVE REPORT - 1998 - 1999**

[illegible]

FOR MORE INFORMATION ABOUT THE

ELECTROWAVE

CALL: (305) 535-9160

Gerald K. Schwartz, Esq., President
Jim Tisdale, Vice President/Treasurer

Judy I. Evans, Executive Director
Rebecca Schwartz, Transportation Coordinator

Prepared: September 1, 1998