GEORGIA INSTITUTE OF TECHNOLOGY — OFFICE OF CONTRACT ADMINISTRATION

PROJECT ADMINISTRATION DATA SHEET

[X] ORIGINAL [ ] REVISION NO. _____

Project No. D-48-615 45 GTRI/~~GIT~~ DATE 8 / 19 / 83

Project Director: Catherine Ross School/~~Lab~~ Architecture

Sponsor: DOT/Urban Mass Transportation Administration
Washington, D.C. 20590

Type Agreement: Grant No. GA-11-0015

Award Period: From 7/7/83 To ~~7/31/84~~ 10-15-84 (Performance) _____ (Reports)

Sponsor Amount:	This Change	Total to Date
Estimated:	$	$
Funded:	$	$ 17,607

Cost Sharing Amount: $ _____ Cost Sharing No: _____

Title: "Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry"

ADMINISTRATIVE DATA OCA Contact John W. Burdette

1) Sponsor Technical Contact:

Peter Benjamin 1 copy
Assoc. Administrator for Technical Asst.
U.S. Department of Transportation
Urban Mass Transportation Administration
Washington, D.C. 20590

2) Sponsor Admin/Contractual Matters:

Ms. Judy Meade * 2 copies
U.S. Dept. of Transportation
Urban Mass Transportation Administration
Univ. Research and Training Program URT-32
400 Seventh Street, SW
Washington, D.C. 20590

Defense Priority Rating: N/A Military Security Classification: N/A

(or) Company/Industrial Proprietary: N/A

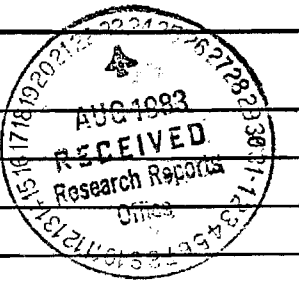
RESTRICTIONS

See Attached _____ Supplemental Information Sheet for Additional Requirements.

Travel: Foreign travel must have prior approval – Contact OCA in each case. Domestic travel requires sponsor approval where total will exceed greater of $500 or 125% of approved proposal budget category.

Equipment: Title vests with GIT; however, none proposed.

COMMENTS:



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GEORGIA INSTITUTE OF TECHNOLOGY — OFFICE OF CONTRACT ADMINISTRATION

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SPONSORED PROJECT TERMINATION/CLOSEOUT SHEET

Date 1/22/85

Project No. D-48-615 — School/~~xxxx~~ Architecture

Includes Subproject No.(s) N/A

Project Director(s) Catherine Ross — GTRI/~~xxxx~~

Sponsor DOT/Urban Moss Transportation Administration

Title "Transit Operation Institute: A Management Development Seminar for Women in the Transit Industry"

Effective Completion Date: 10/15/84 (Performance) 10/15/84 (Reports)

Grant/Contract Closeout Actions Remaining:

- ☐ None
- ☒ xx Final Invoice or Final Fiscal Report
- ☐ Closing Documents
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☐ Other _____

Continues Project No. _____ Continued by Project No. _____

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- Project File
- Other A. Jones
- M. Heyser

PROGRESS REPORT

Title:

Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry

Grant Number:

GA-11-0015

Time Period:

July 7, 1983 through October 31, 1983

As anticipated, the initial period has involved a substantial portion of time being allocated to the organizing and implementing of an administrative structure and the hiring of personnel. Currently, one graduate research assistant has been employed and candidates for an administrative assistant's position are being interviewed.

To a large extent, the success of the upcoming Institute is dependent on the amount of exposure it receives. In order to increase this, the following steps have been taken:

- The Georgia Tech news service was used and news releases describing the project were mailed to all cities in the southeastern region in which an active transit system operates.
- News releases and photos were mailed to women's magazines and trade journals.
- Six hundred flyers, describing the upcoming Institute, were mailed to transit authorities, Women's Transportation Seminar (WTS) members, elected officials, transportation organizations, and interested persons in the southeast region.
- The Atlanta and Washington chapters of WTS printed stories about the Institute in their newsletters.
- The Georgia Tech Whistle, campus newspaper, carried a feature article on the Institute.
- The MARTA Transit Times ran an article on the Institute. Copies of the Transit Times are forwarded to other authorities routinely.

In addition to the above efforts, a great deal of telephone contact has been made.

February 6-10, 1984 has been selected as the week during which the training institute will be conducted. The Howard Johnson's Midtown Hotel has set aside a block of twenty-five rooms for participants. The hotel is conveniently located and has extremely reasonable rates. Georgia Tech's campus is within walking distance and the Tenth Street rail station is within two minutes walk. In addition, MARTA headquarters and the Brady Avenue Bus Operating Facility are nearby.

The selection committee has been identified, contacted, and sent materials outlining their role in the Institute. The committee is composed of the following persons:

Ms. Judy Meade, University Research and Training Program, UMTA, Washington, D.C.

Ms. Bobbie Ibarra, Director of Planning, Metro Dade Transportation Administration, Miami, Florida

Dr. Catherine Ross, Georgia Tech Graduate City Planning Program, Atlanta, Georgia

Ms. Ann Johnson, Manager Research and Analysis, Metropolitan Atlanta Rapid Transit Authority, Atlanta, Georgia

Mr. Robert Stanley, Director, Planning and Policy Analysis, APTA

Each committee member has agreed to seek funds from her/his agency to travel to Atlanta and finalize the selection process.

A number of meetings have been held with MARTA officials to seek input and inform them as planning progresses. This is especially true for Mr. William Nix who is the Assistant General Manager, Transit Operations. Ms. Johnson attended a meeting of the senior staff convened by Mr. Ken Gregor, General Manager. At this meeting, all were briefed on the Institute and progress to date, and Mr. Gregor assured Ms. Johnson of the continuing support throughout the Authority for this project.

A detailed schedule of the week's activity is being developed and currently we are identifying persons within MARTA to do various presentations. Consultants have been advised of the scheduled dates and we are currently identifying time slots during the week when they will make presentations.

A letter of information, outlining the Institute's schedule and content, has been drafted for the MARTA Board of Directors. In addition, a preliminary list of guest officials has been developed. These persons are to be invited to attend and, in some instances, participate in the opening session. The list contains such names as Secretary Dole, Mayor Andrew Young, etc.

While much remains to be done, many activities are under way and progressing nicely.

A great deal must be accomplished during the time period November through January 1984. Central among these are:

1. Finalize Institute schedule
2. Finalize the brochure and application
3. Finalize selection of technical personnel
4. Develop materials for technical sessions
5. Convene the selection committee and select participants
6. Finalize consultants' responsibilities
7. Develop registration procedures
8. Develop evaluation packages
9. Develop list of guest officials

It is difficult to identify problems because thus far things have gone relatively smoothly. The only negative observation might be that tasks, especially start-up, have taken longer to get accomplished than originally anticipated.

LIST OF ATTACHMENTS

1. Flyer mailing list
2. Copies of flyer
3. Atlanta Chapter WTS newsletter article
4. Georgia Tech Whistle article
5 MARTA Transit Times
6. News release

TRANSIT OPERATIONS INSTITUTE:
A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN
IN THE TRANSIT INDUSTRY

GRANT NUMBER:GA-11-0015

Time period October 31,1983 to January 31,1984

The organizational phase of the Institute was completed with the hiring of administrative assistant, Susan Goodrick. The actual preparation for the Institute is virtually complete as the week of the Institute, February 6th through 10th, rapidly approaches.

The brochure and application forms were completed and mailed in November. Response to the brochure was strong. Forty-six women in from Region IV applied. Numerous inquiries were also received from outside Region IV.

The selection committee met on December the 6th. Members had been sent a list of applicants prior to the meeting enabling them to do some preliminary screening. Committee members were asked to base their choices on the following criteria: geographic distribution, age, race and or heritage representativeness, variety of job types and employing agencies; and validity of reasons for attendance or relative potential for managerial development.

Twenty-five participants and a list of alternates were selected. These twenty-five were notified of their selection and asked to accept or decline by January 17th. Only one applicant declined and an alternate was selected. (See attatchment 1, List of Participants)

Participants received a packet containing information on lodging arrangements, the schedule of events and a map of important locations.(See attatchment 2, Orientation Packet) Participants will be staying at the Midtown Howard Johnson, which is very close to Georgia Tech.

Seminars will be held on the Georgia Tech campus, at the Summit Building (MARTA) and in the field at various MARTA facilities.A reception for participants and members of the transit community and Georgia Tech officials will be held at MARTA headquarters in the Summit Building. (See attatchment 3, Reception Guest List)

During the months of December and January, the actual schedule and content of the sessions of the Institute were finalized. Highlights of the schedule include:

Monday, Feb 6th - An overview of transit systems
Speaker, Lucy Freedman, (evening)
On site visit to MARTA transit station

Tuesday, Feb 7th - Seminar, Women In Transit and Non-traditional Career Roles Speaker, Lucy Freedman
On site visit to transit facilities

Wednesday, Feb 8th - Lecture series, Topics include: scheduling evaluation and regional interaction, subsidies, customer services, federal requirements, individual and board of director responsibilities.
Reception for participants, MARTA and Georgia Tech officials.

Thursday, Feb 9th - Extensive on-site visits to MARTA maintenance yards
Seminar, personnel and safety training of staff

Friday, Feb 10th - Speaker, Sarah Lopez
Awards luncheon

(See attatchment 4, Schedule of Events)

Arrangements with the two consultants Lucy Freedman and Sarah Lopez have been finalized.

Lucy Freedman of Baltimore, Maryland, is slated to speak at dinner on Monday night, February 6th and on Tuesday morning, February 7th. Ms. Freedman is president of Affective Education Systems and has extensive experience in presenting programs in management, career development, affirmative action, assertive communications, communications skills for scientific and technical personnel.

Sarah Lopez of Atlanta, Georgia is scheduled to speak on Friday morning, February 10th. Her topics will include management/personal issues, time management, conflict resolution, bureaucracies, communication, women's issues and job requirements. Ms. Lopez is trained in psychotherapy and psychology. She has worked extensively with women in the areas of individual, couples and group therapy.

A variety of informative packets have been developed by graduate research assistants. The packets cover such topics as personal and professional growth, time management, and transportation education. A series of technical materials have been developed for each of the seminar topics. Where appropriate, technical materials reinforcing concepts presented during on-site visitations have been developed. Material will be organized and placed in a binder for the convenience of participants. Each participant will recieve a copy.

A series of evaluation forms has been developed. Particpants will be asked to evaluate selected seminar topics for content and form and they will be asked to evaluate the institute in its entirety. (See attatchment 5, Evaluation Materials)

Media coverage continues with another news release on January 31st. (See attachment 6, News Release)

At this moment, a few small logistical tasks remain.

Awards certificates for participants
Restaurant and meeting spaces will be reconfirmed
All packets and information will be finalized and reproduced for participants and presentors.

TRANSIT OPERATIONS INSTITUTE
February 6-10, 1984
Participants

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404-586-5321

Mary C. Cannon
Transportation Planner
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404-586-5298

Darice Gamble
Contract Administrator
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Susan D. Gore
Executive Director
Coastal Rapid Public Transit Authority
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Conway, South Carolina 29526
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Mildred M. Headdy
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Sarasota County Area Transit
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Sarasota, Florida 33583
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Carolyn S. Heffner
Administrative Assistant
Palm Beach County Transportation Authority
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West Palm Beach, Florida 33406
305-686-4558

Joyce H. Johnson
Administrative Officer
Transportation Institute
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Greensboro, North Carolina 27411
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Pamela F. Kennedy
Assistant Director
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Cora McFarland
Budget Analyst
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State Ridesharing Coordinator
S.C. Department of Highways and Public Transportation
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Community Relations Officer
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Special Assistant to Secretary
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Acting Assistant General Manager/Operations
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Renee Wheeler
Transit Market Analyst
MTDA
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Valerie Whiteside
Transit Customer Representative
MTDA
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Miami, Florida 33152
305-638-6600

Bettina Wood
Transportation Coordinator
Alabama Council on Human Relations, Inc.
P.O. Box 409
Auburn, Alabama 36831-0409
205-821-8336

&date&

&add1&
&add2&
&add3&
&add4&
&add5&

Dear &name&:

It is our pleasure to inform you that you have been selected as one of 25 participants in the Transit Operations Institute to be held in Atlanta, Georgia, February 6-10.

The enclosed "Confirmation of Attendance" card should be returned no later than January 18, 1984. You may indicate on the card if you need a roommate and we will do our best to meet your request. However, there are no guarantees as this will depend on whether or not anyone else requests a roommate.

Accommodations for participants will be at the Howard Johnson's Midtown. The hotel will accept a check (with proper identification), money order and all major credit cards.

Using the enclosed map, you should have no problem finding the hotel's location of 100 10th Street. If driving, come north or south on I-75/85 and take the 10th Street exit. Proceed east and the hotel will be on your right. If flying, you can take the "Airport Shuttle", located at the Transportation Level of the airport, at a cost of $5.25.

Winter weather in Atlanta is unpredictable so either check with the National Weather Service before packing or come prepared for anything. We recommend an all- weather raincoat with a zip out lining and an umbrella. Appropriate daytime dress for Monday, Tuesday and Thursday will be casual slacks and comfortable shoes (flat if possible). On Wednesday and Friday, office attire will be suitable. If the schedule allows for time to change, appropriate evening attire will be dress slacks, dress or suit with medium or flat heeled shoes.

The week's activities will begin Sunday evening, February 5, with an informal orientation/social hour from 7-8 p.m. Seminar materials will be handed out and this will be an opportunity to become acquainted with your fellow classmates.

Registration will be held Monday morning from 8-8:30 a.m., at Georgia Tech. Swann Building, 3rd floor. Bring a check or money order in the amount of $100 made payable to Georgia Institute of Technology.

You will be responsible for your own transportation from the hotel to registration (refer to enclosed map). You can take the train at the Midtown Station to the North Avenue Station (one stop) and proceed west on North Avenue 3 blocks. The Swann Building is located on the corner of North Avenue and Cherry Street. Another suggestion would be to share a cab.

In addition to enclosing a map, we are providing an overview of the week's activities so you'll know what to expect. A more detailed map and schedule will be handed out Sunday evening at the informal orientation session.

Congratulations on your selection! We're looking forward to having you here in Atlanta as a part of this exciting educational opportunity.

Sincerely,

Dr. Catherine L. Ross
Assistant Professor

Ann F. Johnson
Technical Coordinator/MARTA

CR/AJ/sg

Enclosures

WOMEN'S TRANSIT INSTITUTE

Week Schedule - Summary

Sunday evening:	Hotel	Informal Orientation and Refreshments
Monday:		Registration, Welcome
	Tech	Program Overview
		Transit Overview
		*Luncheon -- Georgia Tech
		Bus Transportation
	Brady	Bus Maintenance
		Radio Room
		Dinner with speaker (Diplomat)
Tuesday:		Transit Management history, education
		Women in non-traditional roles (Lucy Freedman)
	Tech	Career planning and problems
		Lunch - the Varsity
		Rail Transportation
		Rail Maintenance
	Avondale	Rail Central Control
		Zone Center/Security
		Dinner - Claudette's?
		Review session, rail and bus operations
Wednesday:		Scheduling bus and rail services
		Assigning operator work-units
		Evaluating patronage
		Revenues, costs, fares, subsidies
	Summit	Public interaction, Federal requirements
		Board of Directors
		Lunch at ?
		*Reception with Program Presentors and Guests at Summit Club
Thursday:	Field	Observe free intermodal check - Arts Center Station
		Breakfast break
		Stores, Materials management
	Brownsmill	Heavy (bus) maintenance
		Lunch at ?
	Laredo	Bus Operator Training
		Bus, Rail Safety
	Field	Tour through construction (Lindberg? Lenox?)
		Shopping/free time at Lenox Square
		Dinner on own
Friday:	Tech	Financial and Support Systems to transit operations
		Management and personal development issues (Sarah Lopez)
	Johathan's	*Awards Banquet, conclusion

* Meals provided by Institute program

MAP OF IMPORTANT LOCATIONS

* Howard Johnson's Midtown - 100 10th Street, near the corner of 10th and Spring Steets.

* Swann Building - Georgia Tech Campus, corner of Cherry Street and North Ave.

* Summit Building - Within Walking distance from MARTA Civic Center Station

CONFIRMATION OF ATTENDANCE

I will definitely attend the Transit Operations Institute, February 6-10, 1984. ___Yes ___No

Please reserve the following room accomodations:
___Single($33) ___Double($37) ___Triple($41)
My roomate(s) is/are_____

Form of payment: ___Agency ___Self ___Agency/Self ___Other
Explain other_____

Date of Arrival_____ Time of Arrival_____

Date of Departure_____

Signature_____

PLEASE RESPOND BY JANUARY 18, 1984

&date&

&add1&
&add2&
&add3&
&add4&
&add5&

Dear &name&:

As you probably know, Georgia Tech and MARTA are joining forces to present the "Transit Operations Institute for Women", the first management development seminar for women in the transit industry, February 6-10, 1984.

One of the week's events will be a reception on Wednesday, February 8th, from 5-6:30 p.m., at the Summit Club, on the 2nd floor (street level) of the Peachtree Summit Building, 401 W. Peachtree Street. We invite you to attend this event which will provide an informal atmosphere for an exchange of ideas and experiences.

Please let us know if you can attend by calling Susan Goodrick at 894-2350 or by dropping Ms. Goodrick a note in c/o Georgia Tech, Graduate City Planning Program, Atlanta, Georgia 30332, by Monday, January 30, 1984.

Sincerely,

Dr. Catherine L. Ross
Assistant Professor/Georgia Tech
Program Director

Ann F. Johnson
Manager/Research and Analysis/MARTA
Technical Director

AJ/CR/sg

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Kay Regan
Office of Financial Management & Special Projects
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Assistant Director, News Bureau
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Marcus E. Collins, Sr.
Board of Directors
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Atlanta, Georgia 30365

"WOMEN IN TRANSIT INSTITUTE"

SCHEDULE OF ACTIVITIES

February 5-10, 1984

TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

SUNDAY

INFORMAL ORIENTATION

7:00 p.m. - 8:00 p.m.

Place: Howard Johnson Hotel, Executive Suites I & II

Purpose: Introduction, Distribute Institute Handbook.

Refreshments: Wine and Cheese

MONDAY

REGISTRATION (OWN TRANSPORTATION)
8:00 a.m. - 8:30 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A (3rd Floor)
Purpose: Pay Registration Fee ($100.00)
Receive: Name Tags, MARTA TransCards, Meal Tickets

CLASSROOM SESSION #1

WELCOME AND ORIENTATION TO ATLANTA
8:30 a.m. - 9:15 a.m.

PROGRAM OVERVIEW
9:15 a.m. - 9:40 a.m.

BREAK
9:45 a.m. - 10:00 a.m.

TRANSIT OVERVIEW
10:00 a.m. - 11:30 a.m.
Purpose: Transit Slide Show, Definitions, MARTA System Development, U.S. Transit Community.

PREVIEW OF AFTERNOON
11:30 a.m. - 11:45 a.m.

LUNCHEON
12:00 p.m. - 1:00 p.m.
Place: Swann Bldg., Ga. Tech., Classroom D

BOARD BUS AND TRAVEL TO GARAGE
1:05 p.m. - 1:25 p.m.

BUS TRANSPORTATION
1:30 p.m. - 2:30 p.m.
Place: Brady Avenue Garage
Purpose: Dispatch, Blockouts, Sign-Ups, Extra Board, Supervision, Displine, and Public Interaction.

BREAK
2:30 p.m. - 2:45 p.m.

(Monday continued next page)

MONDAY (continued)

BUS MAINTENANCE
2:45 p.m. - 3:45 p.m.
Place: Brady Avenue Garage
Purpose: Servicing and Cleaning, Routine Inspections, Minor and Intermediate Repairs, Block-Outs, Tire Shop, Storeroom.

RADIO ROOM
3:45 p.m. - 4:30 p.m.
Place: Brady Avenue Garage
Purpose: Automatic Surveillance of Fluid Systems, Transportation Supervision, Maintenance Supervision, Bus System Security, MARTA Traffic Watch.

BOARD BUS AND RETURN TO HOTEL
4:45 p.m. - 5:00 p.m.

BOARD BUS AND TRAVEL TO RESTARUANT
6:15 p.m. - 6:30 p.m.

DINNER WITH REVIEW SESSION AND SPEAKER
6:30 p.m. - 8:30 p.m.
Place: Diplomat Restaurant
Speaker: Lucy Freedman

BOARD BUS AND TRAVEL TO HOTEL
8:30 p.m. - 8:45 p.m.

TUESDAY

CLASSROOM SESSION #2 (OWN TRANSPORTATION)
8:00 a.m. to 12:15 p.m. *
Place: Swann Bldg., Georgia Tech. - Classroom A
Purpose: Women in Transit, Women in Non-Traditional Roles; Operators, Planners, Consultants; Career Pathing, Discrimination.

*Break at approximately 10:00 a.m.

WALK TO VARSITY DRIVE-IN
12:15 p.m. - 12:30 p.m.

LUNCH AT VARSITY DRIVE IN
12:30 p.m. - 1:30 p.m.

TRAVEL TO AVONDALE STATION ON MARTA RAPID RAIL
1:30 p.m. - 2:00 p.m.

TAKE TRAIN INTO YARD AREA
2:00 p.m. - 2:20 p.m.
Place: Avondale Station Platform, To Be Announced.
Purpose: Observe yard activities, to disembark from end door of car to ground level.

CAR MAINTENANCE BUILDING
2:30 p.m. - 3:30 p.m.
Purpose: Car Maintenance, Signal Maintenance, Maintenance of Right-of Way.

BOARD BUS AND TRAVEL TO CENTRAL CONTROL
3:30 p.m. - 3:40 p.m.

CENTRAL CONTROL
3:40 p.m. - 5:00 p.m.
Purpose: System Structures and System Surveillance (Rail Transp.) Electronic System Maintenance (Fare Gates, CCTV, Radios).

ZONE CENTER/SECURITY
5:00 p.m. - 5:30 p.m.
Purpose: Rail System Security, CCTV Center.

(Tuesday continued next page)

TUESDAY (continued)

BOARD BUS AND TRAVEL TO DINNER
5:30 p.m. - 5:50 p.m.

COCKTAILS AND DINNER
5:50 p.m. - 7:30 p.m.

BOARD BUS AND RETURN TO HOTEL
7:30 p.m. - 8:00 p.m.

WEDNESDAY

COFFEE AND DANISH
8:00 a.m. - 8:15 a.m.
Place: Peachtree Summit Bldg. (Located at Civic Center Station), 23rd Floor, Conference Room 23-E.

INTRODUCTION
8:15 a.m. - 8:45 a.m.

SCHEDULING
8:45 a.m. - 9:30 a.m.
Purpose: Bus and Rail Scheduling Process, Run Cutting/Labor Contract, Special Services.

EVALUATION AND REGIONAL INTERACTION
9:30 a.m. - 10:15 a.m.
Purpose: Traffic Checking, Shelters, Planning.

BREAK
10:15 a.m. - 10:30 a.m.

ANALYSIS AND SUBSIDIES
10:30 a.m. - 11:15 a.m.
Purpose: Routine Analysis, Major Projects, Fares and Subsidies.

CUSTOMER SERVICES
11:15 a.m. - 12:00 p.m.
Purpose: Public Hearings, Service Requests, Public Information.

LUNCH (ON OWN)
12:00 p.m. - 2:00 p.m.
Suggestion: Rapid Rail to Peachtree Center.

OVERVIEW AND FEDERAL REQUIREMENTS
2:00 p.m. - 2:45 p.m.

QUESTIONS
2:45 p.m. - 3:30 p.m.

BOARD OF DIRECTORS
3:30 p.m. - 4:00 p.m.
Purpose: Individual Responsibilities and Board Responsibilities.

(Wednesday continued on next page)

WEDNESDAY (continued)

INDIVIDUAL DISCUSSIONS
4:00 p.m. - 5:00 p.m.

RECEPTION
5:00 p.m. - 6:30 p.m.
Place: Summit Club, Peachtree Summit Building, 2nd Floor.
Purpose: Casual conversation with Institute Personnel and Tour Presentors. Hors d'ourves and two punches served, cash bar available.

THURSDAY

BOARD BUS
7:00 a.m. - 7:10 p.m.

TRAVEL TIME TO ARTS CENTER STATION
7:15 a.m. - 7:30 a.m.

ARTS CENTER STATION
7:30 a.m. - 8:30 a.m.
Place: Arts Center Station
Purpose: Observe Bus and Rail Operations, and Free-Intermodal counts by Traffic Checkers.

TRAVEL FROM ARTS CENTER STATION TO BREAK
8:30 a.m. - 9:00 a.m.

BREAK AT MCDONALD'S RESTAURANT
9:00 a.m. - 9:20 a.m.

BROWNS MILL ROAD GARAGE
9:30 a.m. - 11:30 a.m.
Place: Browns Mill Garage and Hamilton Blvd. Facility
Purpose: Heavy Maintenance; Materials and Supplies Purchasing Procedures.

BOARD BUS AND TRAVEL TO LUNCH
11:30 a.m. - 11:45 p.m.

LUNCH AT MORRISON'S CAFETERIA
11:45 a.m. - 12:40 p.m.

TRAVEL TIME TO LAREDO DRIVE GARAGE
12:45 p.m. - 1:15 p.m.

LAREDO DRIVE GARAGE
1:15 p.m. - 3:30 p.m.
Place: Laredo Drive Garage
Purpose: Transfer Room; Bus and Rail Operator Training and Safety Instruction.

BREAK
3:30 p.m. - 3:45 p.m.

(Thursday continued on next page)

THURSDAY (continued)

BUS TOUR THROUGH CONSTRUCTION AREAS
3:45 p.m. - 5:15 p.m.
Purpose: View Rail System Construction.

TRAVEL TIME TO LENOX SQUARE MALL
5:15 p.m. - 5:30 p.m.

SHOPPING, ETC.
5:30 p.m. - 6:30 p.m.

BOARD BUS AND RETURN TO HOTEL (OPTIONAL)
6:30 p.m. - 7:00 p.m.

FRIDAY

CLASSROOM SESSION #3

TRANSIT MANAGEMENT DEVELOPMENT
8:00 a.m. - 9:00 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A
Purpose: Transit Education - Formal and Informal, Transportation Professional Organizations, Women in the Transit Industry.

9:00 a.m. - 12:30 p.m. *
Purpose: Management/Personal Development Issues, Time Management, Conflict Resolution, Bureaucracies, Communications, Women's Issues, Job Requirements, Role Playing, Evaluation.
Speaker: Sarah Lopez

*Break approximately 10:00 a.m.

BOARD BUS AND TRAVEL TO BANQUET
1:00 p.m. - 1:15 p.m.

AWARDS BANQUET
1:15 p.m. - 2:45 p.m.
Place: Sierra Room, Top of Merchandise Mart (Peachtree St./Harris St.)
Purpose: Lunch and Certificate Presentation.

BOARD BUS AND RETURN TO HOTEL
2:45 p.m. - 3:00 p.m.

TRANSIT OPERATIONS INSTITUTE
GENERAL EVALUATION SHEET

1. Please rate the objectives, as listed below, according to their importance to you, using the following ratings: A=of great importance; B=of some importance; C=of little importance; D=of no importance.

2. Then indicate at the right the extent to which these objectives were achieved by placing an 'x' in the appropriate column.

OBJECTIVE	1 IMPORTANCE RATING	2 EXTENT ACHIEVED		
		Very much so	To some extent	Not at all
To improve your general knowledge about the transit industry.				
To provide knowledge of one major transit agency (MARTA) as a generalizable example or comparison with other agencies.				
To provide information regarding career possibilities in urban transportation.				
To learn where and how the necessary experience can be gained, as a basic qualification for more responsible, non-traditional positions.				
To improve your confidence level as you consider occupying a higher position.				
To identify modes of behavior which produce more successful office relationships				
To improve the amount of work for women				

TRANSIT OPERATIONS INSTITUTE
GENERAL EVALUATION SHEET

OBJECTIVE	1 IMPORTANCE RATING	2 EXTENT ACHIEVED		
		Very much so	To some extent	Not at all
To increase the understanding of the role played by mentors in improving a woman's professional growth and attainment.				
To make participants aware of the general absence of casual work-oriented information and support networks for women				
To improve access to participation in the day-to-day information networks.				

EVALUATION:TRANSIT OPERATIONS INSTITUTE
BUS OPERATIONS
Monday, February 6, 1984

Circle the appropriate answer

1.	The physical setting was...	excellent good fair poor
2.	The length of time spent on this topic was...	more than enough about right needed more time absolutely too long
3.	The presenters were...	well prepared&interesting adequately prepared&interesting adequately prepared but boring poorly prepared
4.	The organization of the information was...	excellent good fair poor
5.	The usefulness of the information was...	immediately useful may be useful later is not useful
6.	The appropriateness of the information was...	very appropriate appropriate inappropriate

EVALUATION:TRANSIT OPERATIONS INSTITUTE
WOMEN IN TRANSIT/NON-TRADIONAL ROLES
Tuesday, February 7, 1984/Morning

Circle the appropriate answer

1.	The physical setting was...	excellent good fair poor
2.	The length of time spent on this topic was...	more than enough about right needed more time absolutely too long
3.	The presenters were...	well prepared&interesting adequately prepared&interesting adequately prepared but boring poorly prepared
4.	The organization of the information was...	excellent good fair poor
5.	The usefulness of the information was...	immediately useful may be useful later is not useful
6.	The appropriateness of the information was...	very appropriate appropriate inappropriate

EVALUATION:TRANSIT OPERATIONS INSTITUTE
RAIL OPERATIONS
Tuesday, February 7, 1984/Afternoon

Circle the appropriate answer

1. The physical setting was...
   - excellent
   - good
   - fair
   - poor

2. The length of time spent on this topic was...
   - more than enough
   - about right
   - needed more time
   - absolutely too long

3. The presenters were...
   - well prepared&interesting
   - adequately prepared&interesting
   - adequately prepared but boring
   - poorly prepared

4. The organization of the information was...
   - excellent
   - good
   - fair
   - poor

5. The usefulness of the information was...
   - immediately useful
   - may be useful later
   - is not useful

6. The appropriateness of the information was...
   - very appropriate
   - appropriate
   - inappropriate

EVALUATION:TRANSIT OPERATIONS INSTITUTE
SCHEDULING, EVALUATION, AND PUBLIC INTERACTION
Wednesday, February 8, 1984

Circle the appropriate answer

1.	The physical setting was...	excellent good fair poor
2.	The length of time spent on this topic was...	more than enough about right needed more time absolutely too long
3.	The presenters were...	well prepared&interesting adequately prepared&interesting adequately prepared but boring poorly prepared
4.	The organization of the information was...	excellent good fair poor
5.	The usefulness of the information was...	immediately useful may be useful later is not useful
6.	The appropriateness of the information was...	very appropriate appropriate inappropriate

EVALUATION:TRANSIT OPERATIONS INSTITUTE
February 6-10, 1984

Check the appropriate answer

	YES	TO SOME EXTENT	NO
1. Did the Institute meet your expectations based on the advanced announcement?	___	_____	___
2. Were there other topics you would like to have discussed?	___	_____	___
3. Which sessions did you find most helpful?	_____		
4. Which sessions were least helpful?	_____		

	EXCELLENT	GOOD	FAIR	POOR
5. Were the physical facilities...	_____	____	____	____

Comments:_____
_____
_____

	EXCELLENT	GOOD	FAIR	POOR
6. Did you find the meals to be...	_____	____	____	____

Comments:_____
_____
_____

	EXCELLENT	GOOD	FAIR	POOR
7. Were the hotel accommodations...	_____	____	____	____

Comments:_____
_____
_____

TECH NEWS

Georgia Institute of Technology
News Bureau
Atlanta, Georgia 30332
(404) 894-2452

A Unit of the University System of Georgia

January 31, 1984

1988
FOR IMMEDIATE RELEASE

For more information contact:
Charles Harmon, Director
Jill C. Sewell, Asst. Director
Pam Rountree

Tech & MARTA Team Up To Look at Women in Transit

ATLANTA--Women transit professionals from the southeast will arrive in Atlanta Feb. 5 to participate in a week-long seminar focusing on the non-traditional roles of women within the transit system. The "Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry" is made possible by a $74,607 grant from the Urban Mass Transportation Administration to Georgia Tech and is being presented in cooperation with the Metropolitan Atlanta Rapid Transit Authority. The institute runs through Feb. 10.

The women will be exposed to all facets of the transit industry, with MARTA serving as a study guide to a "typical" transit agency. The women will hear lectures, panel discussions, receive on-site briefings and tours, and focus on transit systems operations, management strategies, problems facing women in their professional roles in a traditionally male-oriented industry, and relationships among peers, supervisors and subordinates.

Dr. Catherine L. Ross, an assistant professor in Georgia Tech's College of Architecture, is project director of the institute. Ann F. Johnson, manager of the Research and Analysis Branch in the Department of Transit Operations at MARTA, is project coordinator for MARTA and has provided technical and operational expertise in planning and scheduling the transit institute. Both women are members of the Women's Transportation Seminar, a national professional organization for women in the transportation field.

Ross and Johnson hope that ongoing funding can be established for the institute and that it will become a routine training tool for the transit industry. The women will be instructed at MARTA's various garages and stations, MARTA headquarters in the Peachtree Summit Building and at Georgia Tech. Some of the transit institute highlights follow.

Monday, February 6

TECH/MARTA - add 1
#1988 , 1/31/84

Tuesday, February 7

Topic: Classroom Session - 8 a.m. - 12:15 p.m., Swann Building - Rm. A (Georgia Tech campus on Cherry Street at North Avenue)
Purpose: Women in Transit, Women in Non-Traditional Roles, Operators, Planners, Consultants, Career Pathing, Discrimination.

Topic: Take Train into Yard Area at Avondale Station - 2 - 2:20 p.m., Avondale Station Platform
Purpose: Observe yard activities, to disembark from end door of car to ground level.

Topic: Car Maintenance Building - 2:30 - 3:30 p.m., Avondale Station
Purpose: Car Maintenance, Signal Maintenance, Maintenance of Right of Way.

Topic: Central Control - 3:40 - 5 p.m., Avondale Station
Purpose: System Structures and System Surveillance (Rail Transportation) Electronic System Maintenance (Fare Gates, CCTV, Radios).

Topic: Zone Center/Security - 5 - 5:30 p.m., Avondale Station
Purpose: Rail System Security, CCTV Center.

Wednesday, February 8

Topic: Analysis and Subsidies - 10:30 - 11:15 a.m., Peachtree Summit Building (located at Civic Center Station), 23rd Floor, Conference Rm. 23-E.
Purpose: Routine Analysis, Major Projects, Fares and Subsidies.

Thursday, February 9

Topic: Browns Mill Road Garage , 9:30 - 11:30 a.m., Browns Mill Garage and Hamilton Boulevard Facility
Purpose: Heavy Maintenance, Materials and Supplies Purchasing Procedures.

Friday, February 10

Topic: Transit Management Development, 9 a.m. - 12:30 p.m., Swann Building (Georgia Tech campus on Cherry Street at North Avenue), Rm. A
Purpose: Management/Personal Development Issues, Time Management, Conflict Resolution, Bureaucracies, Communications, Women's Issues, Job Requirements, Role Playing, Evaluation.
Speaker: Sarah Lopez, local consultant

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PROGRESS REPORT

Title:

Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry

Grant Number:

GA-11-0015

Time Period

January 31, 1984 through April 30, 1984

During the four days remaining before the Institute's official beginning last minute tasks such as confirming meeting rooms and dinner reservations, creating necessary signage, perusing Institute notebooks for completeness and so on were handled.

An unusual twist in pre-Institute publicity came in the form of an opportunity for Dr. Catherine Ross, Project Director, and Ann F. Johnson, Technical Monitor, to be the guests of Ike Newkirk on his radio talk show "Openline" on Sunday morning, February 5, 1984. Both women answered a variety of questions from callers contributing to the public's awareness of the Institute's purpose and goals.

The Institute opened with a Sunday evening get-aquainted session, which included introduction of the attendees (See Attachment A) and distribution of the basic workbook for the week. The week's time was divided roughly between classroom sessions at Georgia Tech and technical tours at MARTA. (See Attachment B) The classroom sessions covered management/personal-development issues, women in the transit industry, and concepts in formal education. (See Attachment B) The technical tours covered bus operations, rail operations and security, bus heavy maintenance, safety and instruction, and bus/rail intermodal activity, scheduling, analysis of service, traffic checking, and a visit with a Board Member.(See attachment C)

The concluding banquet was held on Friday, February 10, and featured remarks from Ken Gregor, General Manager/MARTA, Dr. Ross and Ms. Johnson. Each attendee received two certificates and personal photographs documenting their particpation in the Institute. One certificate was from Georgia Tech's Office of Continuing Education certifying the 4.0 CEU's awarded; and the other was a special dual-agency certificate issued by both MARTA and Georgia Tech documenting completion of this unique educational experience. (See attachment D)

The response to the Institute was overwhelmingly positive. The participants were generally pleased and delighted at the experience they had had; many made suggestions of changes or modifications they would like to see included in future

sessions. Attached are copies of letters received from some of the particpants upon their return to their home agencies as well as a listing of informal remarks and comments made by various individuals during the week of the Institute. (Attachment E)

Media coverage was adequate. (Attachment F)

Plans during the final period of this project include paying bills, reviewing expenditures, compilation and analysis of evaluations, mailing of a follow-up survey to the participants after a six-month interval and the preparation of the Final Report.

Problems were few and minor. Two women who sent in their confimation cards did not attend. They did not notify us as to their change of plan. We feel this could have been avoided if a deposit, refundable up to two weeks prior to the Institute, had been required.

Georgia Tech Department of Continuing Education's services were sometimes disappointing. The person assisting with our program had only been on the job for a few days. The taking and relaying of messages by CE personnel was minimal. The classroom was too cold.

TRANSIT OPERATIONS INSTITUTE
February 6-10, 1984
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"WOMEN IN TRANSIT INSTITUTE"

SCHEDULE OF ACTIVITIES

February 5-10, 1984

TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

Attachment B
1/30/84

Women in Transit Institute
Schedule of Activities

SUNDAY, FEBRUARY 5, 1984

INFORMAL ORIENTATION
7:00 p.m. - 8:00 p.m.
Place: Howard Johnson Hotel, Executive Suites I & II
Purpose: Introduction, Distribute Institute Handbook.
Refreshments: Wine and Cheese

Women in Transit Institute
Schedule of Activities

MONDAY, FEBRUARY 6, 1984

REGISTRATION (OWN TRANSPORTATION)
8:00 a.m. - 8:30 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A (3rd Floor)
Purpose: Pay Registration Fee ($100.00)
Receive: Name Tags, MARTA TransCards, Meal Tickets

CLASSROOM SESSION #1

WELCOME AND ORIENTATION TO ATLANTA
8:30 a.m. - 9:15 a.m.

PROGRAM OVERVIEW
9:15 a.m. - 9:40 a.m.

BREAK
9:45 a.m. - 10:00 a.m.

TRANSIT OVERVIEW
10:00 a.m. - 11:30 a.m.
Purpose: Transit Slide Show, Definitions, MARTA System Development, U.S. Transit Community.

PREVIEW OF AFTERNOON
11:30 a.m. - 11:45 a.m.

LUNCHEON
12:00 p.m. - 1:00 p.m.
Place: Swann Bldg., Ga. Tech., Classroom D

BOARD BUS AND TRAVEL TO GARAGE
1:05 p.m. - 1:25 p.m.

BUS TRANSPORTATION
1:30 p.m. - 2:30 p.m.
Place: Brady Avenue Garage
Purpose: Dispatch, Blockouts, Sign-Ups, Extra Board, Supervision, Displine, and Public Interaction.

BREAK
2:30 p.m. - 2:45 p.m.

(Monday continued next page)

MONDAY, FEBRUARY 6, 1984 (continued)

BUS MAINTENANCE
2:45 p.m. - 3:45 p.m.
Place: Brady Avenue Garage
Purpose: Servicing and Cleaning, Routine Inspections, Minor and Intermediate Repairs, Block-Outs, Tire Shop, Storeroom.

RADIO ROOM
3:45 p.m. - 4:30 p.m.
Place: Brady Avenue Garage
Purpose: Automatic Surveillance of Fluid Systems, Transportation Supervision, Maintenance Supervision, Bus System Security, MARTA Traffic Watch.

BOARD BUS AND RETURN TO HOTEL
4:45 p.m. - 5:00 p.m.

BOARD BUS AND TRAVEL TO RESTARUANT
5:30 p.m. - 6:00 p.m.

COCKTAILS AND DINNER WITH REVIEW SESSION AND SPEAKER
6:00 p.m. - 8:45 p.m.
Place: Sandpiper Restaurant
Speaker: Lucy Freedman

BOARD BUS AND TRAVEL TO HOTEL
8:45 p.m. - 9:00 p.m.

Women in Transit Institute
Schedule of Activities

TUESDAY, FEBRUARY 7, 1984

CLASSROOM SESSION #2 (OWN TRANSPORTATION)
8:00 a.m. to 12:15 p.m. *
Place: Swann Bldg., Georgia Tech. - Classroom A
Purpose: Women in Transit, Women in Non-Traditional Roles; Operators, Planners, Consultants; Career Pathing, Discrimination.

*Break at approximately 10:00 a.m.

WALK TO VARSITY DRIVE-IN
12:15 p.m. - 12:30 p.m.

LUNCH AT VARSITY DRIVE IN
12:30 p.m. - 1:30 p.m.

TRAVEL TO AVONDALE STATION ON MARTA RAPID RAIL
1:30 p.m. - 2:00 p.m.

TAKE TRAIN INTO YARD AREA
2:00 p.m. - 2:20 p.m.
Place: Avondale Station Platform, To Be Announced.
Purpose: Observe yard activities, to disembark from end door of car to ground level.

CAR MAINTENANCE BUILDING
2:30 p.m. - 3:30 p.m.
Purpose: Car Maintenance, Signal Maintenance, Maintenance of Right-of Way.

BOARD BUS AND TRAVEL TO CENTRAL CONTROL
3:30 p.m. - 3:40 p.m.

CENTRAL CONTROL
3:40 p.m. - 5:00 p.m.
Purpose: System Structures and System Surveillance (Rail Transp.) Electronic System Maintenance (Fare Gates, CCTV, Radios).

ZONE CENTER/SECURITY
5:00 p.m. - 5:30 p.m.
Purpose: Rail System Security, CCTV Center.

(Tuesday continued next page)

TUESDAY, FEBRUARY 7, 1984 (continued)

BOARD BUS AND TRAVEL TO DINNER
5:30 p.m. - 5:50 p.m.

COCKTAILS AND DINNER
5:50 p.m. - 7:45 p.m.

BOARD BUS AND RETURN TO HOTEL
7:45 p.m. - 8:00 p.m.

Women in Transit Institute
Schedule of Activities

WEDNESDAY, FEBRUARY 8, 1984

COFFEE AND DANISH
8:00 a.m. - 8:15 a.m.
Place: Peachtree Summit Bldg. (Located at Civic Center Station), 23rd Floor, Conference Room 23-E.

INTRODUCTION
8:15 a.m. - 8:45 a.m.

SCHEDULING
8:45 a.m. - 9:30 a.m.
Purpose: Bus and Rail Scheduling Process, Run Cutting/Labor Contract, Special Services.

EVALUATION AND REGIONAL INTERACTION
9:30 a.m. - 10:15 a.m.
Purpose: Traffic Checking, Shelters, Planning.

BREAK
10:15 a.m. - 10:30 a.m.

ANALYSIS AND SUBSIDIES
10:30 a.m. - 11:15 a.m.
Purpose: Routine Analysis, Major Projects, Fares and Subsidies.

CUSTOMER SERVICES
11:15 a.m. - 12:00 p.m.
Purpose: Public Hearings, Service Requests, Public Information.

LUNCH (ON OWN)
12:00 p.m. - 2:00 p.m.
Suggestion: Rapid Rail to Peachtree Center.

OVERVIEW AND FEDERAL REQUIREMENTS
2:00 p.m. - 2:45 p.m.

QUESTIONS
2:45 p.m. - 3:30 p.m.

BOARD OF DIRECTORS
3:30 p.m. - 4:00 p.m.
Purpose: Individual Responsibilities and Board Responsibilities.

(Wednesday continued on next page)

Women in Transit Institute
Schedule of Activities

WEDNESDAY, FEBRUARY 8, 1984 (continued)

INDIVIDUAL DISCUSSIONS
4:00 p.m. - 5:00 p.m.

RECEPTION
5:00 p.m. - 6:30 p.m.
Place: Summit Club, Peachtree Summit Building, 2nd Floor.
Purpose: Casual conversation with Institute Personnel and Tour Presentors. Hors d'ourves and two punches served, cash bar available.

Attachment B

Women in Transit Institute
Schedule of Activities

THURSDAY, FEBRUARY 9, 1984

BOARD BUS
7:00 a.m. - 7:10 p.m.

TRAVEL TIME TO ARTS CENTER STATION
7:15 a.m. - 7:30 a.m.

ARTS CENTER STATION
7:30 a.m. - 8:30 a.m.
Place: Arts Center Station
Purpose: Observe Bus and Rail Operations, and Free-Intermodal counts by Traffic Checkers.

TRAVEL FROM ARTS CENTER STATION TO BREAK
8:30 a.m. - 9:00 a.m.

BREAK AT MCDONALD'S RESTAURANT
9:00 a.m. - 9:20 a.m.

BROWNS MILL ROAD GARAGE
9:30 a.m. - 10:00 a.m.
Place: Browns Mill Garage
Purpose: Materials and Supplies Purchasing Procedures.

10:00 a.m. - 11:30 a.m.
Purpose: Heavy Maintenance

BOARD BUS AND TRAVEL TO LUNCH
11:30 a.m. - 11:45 p.m.

LUNCH AT MORRISON'S CAFETERIA
11:45 a.m. - 12:40 p.m.

TRAVEL TIME TO LAREDO DRIVE GARAGE
12:45 p.m. - 1:15 p.m.

LAREDO DRIVE GARAGE
1:15 p.m. - 3:30 p.m.
Place: Laredo Drive Garage
Purpose: Transfer Room; Bus and Rail Operator Training and Safety Instruction.

BREAK
3:30 p.m. - 3:45 p.m.

(Thursday continued on next page)

Women in Transit Institute
Schedule of Activities

THURSDAY, FEBRUARY 9, 1984 (continued)

BUS TOUR THROUGH CONSTRUCTION AREAS
3:45 p.m. - 5:15 p.m.
Purpose: View Rail System Construction.

TRAVEL TIME TO LENOX SQUARE MALL
5:15 p.m. - 5:30 p.m.

SHOPPING, ETC.
5:30 p.m. - 6:30 p.m.

BOARD BUS AND RETURN TO HOTEL (OPTIONAL)
6:30 p.m. - 7:00 p.m.

Women in Transit Institute
Schedule of Activities

FRIDAY, FEBRUARY 10, 1984

CLASSROOM SESSION #3

CHECK OUT OF HOTEL AND PLACE BAGGAGE IN SAFE ROOM

TRANSIT MANAGEMENT DEVELOPMENT
8:00 a.m. - 9:00 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A
Purpose: Transit Education - Formal and Informal, Transportation Professional Organizations, Women in the Transit Industry.

9:00 a.m. - 12:30 p.m. *
Purpose: Management/Personal Development Issues, Time Management, Conflict Resolution, Bureaucracies, Communications, Women's Issues, Job Requirements, Role Playing, Evaluation.
Speaker: Sarah Lopez

*Break at approximately 10:00 a.m.

EVALUATIONS
12:30 p.m. - 1:00 p.m.

BOARD BUS AND TRAVEL TO BANQUET
1:00 p.m. - 1:15 p.m.

AWARDS BANQUET
1:15 p.m. - 2:45 p.m.
Place: Sierra Room, Top of Merchandise Mart (Peachtree St./Harris St.)
Purpose: Lunch and Certificate Presentation.

BOARD BUS AND RETURN TO HOTEL
2:45 p.m. - 3:00 p.m.

Attachment B

Women's Transit Institute -- Technical Tours
February 6-10. 1984
MARTA "Presentors"

Monday morning Welcome Session

Clay Long, Board Chairman *
William C. Nix, AGM for DTO *
Bruce Emory. Deputy AGM for DTO
Lindy Welch. Customer Services (slide show presentation)
Ann Johnson, Project Technical Coordinator

Monday afternoon, Brady Avenue

Walter McElroy. Transportation
Ann Freeman, Transportation*
Dan Grimes, Transportation
Mary Ray. Dispatcher
Jimmie Evans, Maintenance
Erica McCart, Traffic Watch
B.L. Phillips, Radio Room

Tuesday afternoon, Avondale

T.O. Duvall. Bus & Rail Transportation
W.E. Callier, Rail Transportation
Shirley Johnson, Rail Transportation
Gloria Woods, Rail Transportation
George Payne. Communications
Jean Alexander, Communications
Sgt. Barbara Austin, Communications
Bill McCoy. Rail Maintenance

Wednesday, Summit Building

M.C. York, Director SP&S
Harold Bolt, Scheduling
James P. Brown, Jr., Planning
Ann Johnson, Analysis
Annie Harris, Analysis
David Williamson, Planning & Analysis
Roger Dottin, Customer Services
Lyndon Wade, Board of Directors

Thursday, many locations

Wilfred Beal. Evaluation & Monitoring
James Rafferty. Materials and Supplies
John Bruce, Operator Training and Safety
John Noga. Operator Training and Safety
Homer Clemmons, Operator Training & Safety
Edward Manning, Transportation
Marion E. Reese, Jr., Transfers
R.J. Malcom. Bus Heavy Maintenance
David Manuel. Const'n Tour Guide

Other Functions

Kenneth M. Gregor. General Manager (luncheon speaker & overall Authority support)
Bob Brennan, Mak Gebre-Hiewt, Irv Mullins and Rod Ratcliffe (publicity. in cooperation with Georgia Tech)
Eileen Cioe, Lauren Solmon, Bob Harvey. and Joy Williams (meals and printing assistance support)
Velma Ludaway and Kathie Golden (graphics work)

*Denotes persons scheduled but unable to make presentations for various reasons.

GEORGIA INSTITUTE OF TECHNOLOGY

This is to certify that SAMPLE

has successfully completed the

conducted by the
DEPARTMENT OF
CONTINUING EDUCATION

Atlanta, Georgia

President

Director, Continuing Education

RECOGNITION IS HEREBY GIVEN THAT

June Burridge

has successfully completed the

TRANSIT OPERATIONS INSTITUTE

a joint educational effort between

GEORGIA INSTITUTE of TECHNOLOGY

and

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

as sponsored by the Urban Mass Transportation Administration

February 6 - 10, 1984

Atlanta, Georgia

Project Director

Technical Coordinator

President, Georgia Tech

General Manager, MARTA

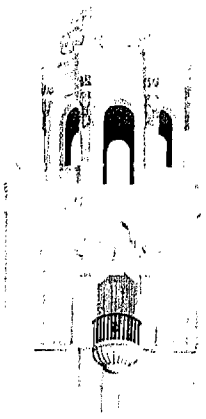
WOMEN'S TRANSIT OPERATIONS INSTITUTE - -GROUP PHOTO

Dr. Catherine Ross
Project Director

Ann F. Johnson
Technical Coordinator

Front Row: Carolyn Heffner, Mildred Headdy, Ross, Johnson, Barbara Saunders, Cora McFarland, Ana Piñero

Back Row: Pamela Kennedy, Thelma Sublett, Connie Cannon, Flora Lankford, June Burridge, Pauline Newman, Carolyn Read, Mabel Boseman, Robin Sobrino, Patricia Mizell, Bettina Wood, Judy Seidner, Renee Wheeler



COUNTY OF SARASOTA

FLORIDA

SARASOTA COUNTY AREA TRANSIT

February 13, 1984

Catherine L. Ross, Ph.D.
Assistant Professor
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Dr. Ross:

RE: Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry

I am writing to you to express my appreciation for the opportunity to attend this unique institute. The objectives with the ultimate goal to improve the breadth of experience for women transit personnel were clearly defined. I offer you my congratulations for your part in the academic and experiential program of activities that were planned and initiated through the use of varying components. It was rewarding to view the joint cooperation of the Georgia Institute of Technology and the Metropolitan Atlanta Rapid Transit Authority.

I sincerely hope that this pilot program will be funded in the future and that many more women across the United States will have this opportunity to further their career goals and to assist in furthering the goals of the transit industry.

I consider it my personal responsibility to network the transit experience to other women in the Transit Industry and to network other applicable portions to women in non-transit employment.

Sincerely,

Mildred M. Headdy
Finance Supervisor

MMH-rvd

5303 PINKNEY AVENUE • SARASOTA, FLORIDA 33583-2421 • TELEPHONE: 813/922-0702

City Of Raleigh

North Carolina

February 14, 1984

Dr. Catherine L. Ross
Assistant Professor
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Catherine:

I wanted to express, once again, my appreciation for the opportunity to be a part of the very worthwhile Transit Operations Institute.

The program format was extremely well organized and provided a tremendous learning experience for me. I have realized, since returning to my office, that the knowledge gained was even greater than I had thought.

Thank you for your part in making this program a reality. It is my sincere wish that the program will be continued so that others may benefit as I have.

Best wishes and may all your future situations be win - win.

Yours truly,

Barbara S. Saunders
Administrative Assistant

BSS/pv

Attachment E
Page 2 of 7

0 1984

ALABAMA COUNCIL ON HUMAN RELATIONS, INC.

Nancy Spears,

February 16, 1984

Dr. Catherine Ross
Assistant Professor
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, GA 30332

Dear Catherine:

I've often wondered how Dorothy felt when she returned from the Wonderful World of Oz and found herself back in Kansas. After the fantastic week at Georgia Tech and MARTA I am now back in Alabama with 6 buses, 2 station wagons and a mini-van. I'm so glad you didn't restrict attendance to the huge transit properties like MARTA, because although I represented the smallest system, the fact that I am directly responsible for every aspect of it from marketing to maintenance made the training invaluable to me. I learned as much from informal sessions with my classmates as I did from the presentation and field inspections.

The tremendous amount of planning and coordination put into this project by UMTA, MARTA, Georgia Tech, and most especially by you and Ann are really going to pay off now that we are all back home. The enthusiasm we brought with us was justified: the work that you put into it made this the most important transportation seminar I have ever attended, and its going to benefit me personally, my agency's system, and hopefully the transit industry. Thanks again for your dedication which made the program such a success.

Sincerely,

Bettina Wood
Transportation Coordinator
Lee County Transit

BW/pdt

PEE DEE REGIONAL TRANSPORTATION AUTHORITY
P.O. Box 2071, Florence, S.C., 29503
Telephone: 803 - 665-2227

FEB 16 1984

Dr. Catherine L. Ross
Program Director
Assistant Professor
Georgia Institute of Technology
Graduate City Planning Program
Atlanta, Georgia 30332

Dear Catherine:

It was a real pleasure meeting and working with you during the week in Atlanta. As I look back on those days, it is hard to believe it happened and that we were fortunate to be pioneers in the field!

I learned so much from you and sincerely hope that we will make the effort to continue our association and exchange information on an on-going basis. Women in transportation share a set of unique problems that only we can fully appreciate.

Please don't hesitate to contact me if I can provide you with any assistance.

Sincerely,

Pamela F. Kennedy
Assistant Director

PFk/am

Catherine - It was an experience. Let's have a reunion & part II soon.

Attachment E
Page 4 of 7

FEB 20 1984

METRO-DADE TRANSPORTATION ADMINISTRATION
44 W. Flagler Street • Miami, Florida 33130

Community Relations
18 Floor - (305) 579-4505

March 2, 1984

Dr. Catherine Ross
Assistant Professor
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, Georgia 30332

Dear Catherine:

It was a pleasure meeting you at the Transit Operations Institute. You can't imagine the impression and enthusiasm I left Atlanta with. It was a great experience for me, meeting such fascinating people in the Seminar and at MARTA.

I wish you much success in making this Institute into a permanent national program for all women in the transit industry. I can envision this program expanding into all facets of transportation in the future. With your dedication to the field and women there is no doubt that it can be done.

I was very impressed by you and what you have accomplished over the years. It just inspires me even more in my career endeavors. I had so much confidence within myself when I left there and I knew I could make it no matter what.

I hope that we can keep in touch and whenever there is something of interest in transportation that you feel I would benefit from, please contact me.

Sincerely,

Renee Wheeler
Transit Market Analyst I

RW:mjm

Verbal comments made by Participants in the Women's Transit Institute, February 5-10. 1984.

Attendance at this Institute has probably saved my job; I was so depressed over problems there that I was on verge of quitting; but now I see things in better perspective.

Appreciate the incredible opportunity to see roles of traffic checker, break mechanic & board member all at once.

I didn't even realize there existed a formal body of knowledge regarding transportation issues; Dr. Ross opened a whole new horizon on the topic for me.

Will take broader (multimodal) perspective for transit work now.

Ann Johnson knew entire system; for any topic mentioned, her answer was not merely a single response but a full discussion.

Glad to see "Who should Attend" section of brochure; something for us finally. (Lower-to-mid level)

Valuable to see Ann Johnson and Catherine Ross in daily dress for work--not a petty issue since no role models available for many women in smaller agencies.

In this one week, I have learned more regarding personal development than in a year or more otherwise; this has had more impact on me than I could possibly explain.

Over and over again comments detailing the tremendous value in seeing all of the elements of providing transit services on the street:
- know own specialized area only; now see all the rest, and how they fit together;
- at small agency have to do so many things that none can be done well;
- appreciate what DTO really is, rather than shallow and vague impression up til now.

Very glad to learn about rail operations since will soon be doing same at our own property.

Up until now. I thought of myself as a "community relations person" and did not realize how much "transportation" I did know; this has opened up a new horizon of career options in my mind.

Impressed with range and variety of positions held by black and white men and women at MARTA.

Glad to be able to tour and ask questions of so many different sections of agency; preparing training program for own agency.

I did not know what Operations department "did" - it was just a general unknown segement until now.

My opinion of bus operators has improved greatly; I'm no longer snobbish toward them.

Interested to learn about backgrounds of people making presentations, especially who did and who did not begin as a bus operator or mechanic.

Expected to come to "learn about transit" ; did not expect to have such a good time doing it.

Atlanta/ ***Transit seminar***

2/6/84 Atlanta Constitution

Women transit professionals from the Southwest are in Atlanta this week to participate in a seminar at Georgia Tech that will focus on the non-traditional roles of women within the tranit system.

The "Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry" will use MARTA as a study guide of the "typical" transit agency.

Catherine L. Ross, an assistant professor in Georgia Tech's College of Architecture, is project director of the institute.

Participants will hear lectures and panel discussions and receive on-site briefings and tours. They will focus on transit systems operations, management strategies, problems facing women in their professional roles in a traditionally male-oriented industry, and relationships among peers, supervisors and subordinates.

The institute, which lasts until Feb. 10, was made possible by a $74,607 Urban Mass Transportation Administration grant to Georgia Tech. It is being presented in cooperation with MARTA.

THE GEORGIA TECH

WHISTLE

' - VOLUME 10, NUMBER 5 - FEBRUARY 13, 1984

Photo by Alan David

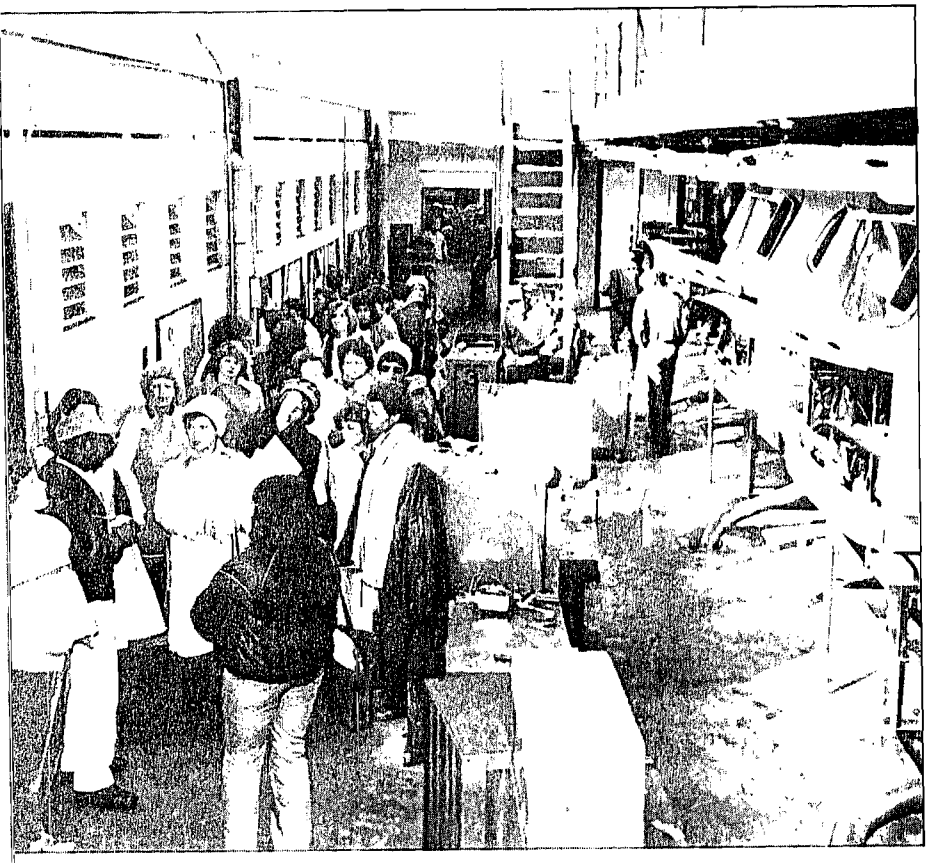
Transit Tutoring

Consultant Lucy Freedman (L) and psychologist Dr. Sarah Lopez talk transit with MARTA's Ann Johnson and Dr. Catherine Ross of Tech's College of Architecture during the recent Transit Operations Institute management development seminar coordinated by Tech and MARTA. Using MARTA as a study guide to a "typical" transit agency and Tech expertise and classroom space, the women got a technical look at the non-traditional roles of women within the transit system. The session was made possible by a $74,607 grant given to Tech by the Urban Mass Transportation Administration.

marta®

TRANSIT TIMES

Vol. 34, No. 3 Published for the employees of the Metropolitan Atlanta Rapid Transit Authority February 23, 1984



(Left) Touring the Brady Avenue maintenance facility are participants in the first Transit Operations Institute, held in Atlanta February 5-10. A management development seminar designed for women in the transit industry, and limited to those in the southeastern region, the Institute attracted 21 women from as far away as Miami and Puerto Rico.

Shown above are seminar organizers Dr. Catherine Ross (left) of Georgia Tech, and Ann Johnson, of MARTA. Seminar attendees, said Johnson, "Were delighted with the program. We had terrific cooperation and participation from people all over the system."

'oman Of The Week

Women's Transit Careers Discussed

Under a $74,000 grant from the Urban Mass Transportation Administration (UMTA), the Transit Operations Institute held a five-day seminar for women in the transit industry.

The seminar, which drew participants from some 14 transit properties and other agencies in the southeast, focused on such topics as increased utilitzation of women, preparation of women for management roles and providing operations experience, the element often lacking in women's transit careers.

All classroom sessions were held on the campus of the Georgia Institute of Technology and workshops were conducted by MARTA facilities. MARTA also provided tours of operating and maintenance facilities.

The tours were primarily designed to provide an overview of such transit operations functions as bus maintenance, rail maintenance and bus/rail operations and supervision. Participants also had an opportunity to look at MARTA's operator training and safety awareness programs and the free intermodal transfer activity at some of the rail stations.

Some of the sessions covered subjects such as educational opportunities within the industry, management development programs and roles females have assumed in non-traditional areas of the transit industry.

The funding by the UMTA Office of University Training and Research is an outgrowth of a proposal jointly drawn by MARTA and the Georgia Institute of Technology.

D-48-615

Report No. GA-11-0015

TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

Dr. Catherine L. Ross
Associate Professor
Georgia Institute of Technology
College of Architecture
Atlanta, Georgia 30332

AUGUST 1984

FINAL REPORT
VOLUME I

Prepared for

U.S. DEPARTMENT OF TRANSPORTATION
URBAN MASS TRANSPORTATION ADMINISTRATION
Office of Technical Assistance
University Research and Training Program
Washington, D.C. 20590

Technical Report Documentation Page

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15. Supplementary Notes

16. Abstract

This report outlines the results of a one-week Institute designed to provide professional growth and enhancement for women currently employed in the transit industry. Georgia Institute of Technology joined with the Metropolitan Atlanta Rapid Transit Authority (MARTA) to provide an overview of the transit operations side of the industry. The intent was to provide a reasonable representation of the range of functions which are needed and the skills and backgrounds women must claim in order to perform these. The Institute combined on-site tours, pre-tour briefings, panel discussions, lectures and a variety of experiential opportunities in an effort to respond to the needs of women for technical/operational training in the transit industry.

The scope and thrust of the Institute was designed in part to help fill recently expressed needs in the transit industry for new managerial personnel and simultaneously to improve utilization of women throughout all levels of the industry. Issues that were addressed included major actual operations involvement, real and perceived problems regarding women in the field, real skills and experience requirements, and improved self-image for women regarding their own professional validity and their interactions with their peers, supervisors and subordinates. Extensive evaluations of various sessions were conducted and may be used to assist in the conduct of a similar effort.

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Training, women, management, transportation education, career-pathing, skills development, professional development, transit operations	Available to the public through the National Technical Information Service Springfield, Virginia 22161

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Unclassified	Unclassified		

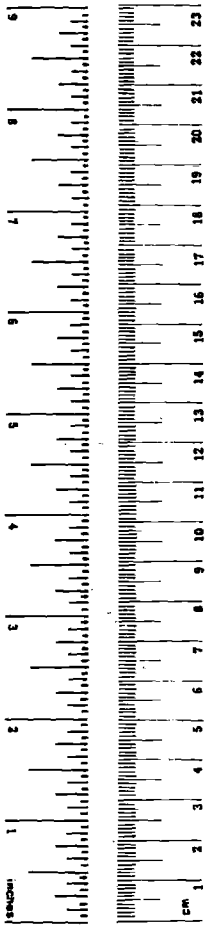
Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

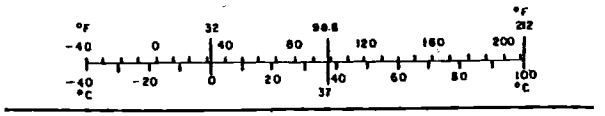
Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^2
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



ACKNOWLEDGEMENTS

The author would like to express her appreciation to all of those employed by the Metropolitan Atlanta Rapid Transit Authority (MARTA) who assisted in the conduct of the Institute. In particular, the tireless effort and enthusiasm put forth by Ann Johnson, Manager of Research and Analysis was pertinent to its success. Of course, all of this was made possible through the commitment and dedication of Mr. Ken Gregor, General Manager, for continued progress in the transit industry.

Funding for this effort was provided by the UMTA University Research and Training Program. The author appreciates the support and participation of the project monitor, Ms. Judy Meade. Her foresight and intelligence contributed immensely to the accomplishment of Institute objectives.

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TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

EXECUTIVE SUMMARY

A week-long Institute, to strengthen the operations/management-development background of women in the transit industry, was held February, 6-10, 1984, in Atlanta, Georgia. Its purpose was to increase the number of women prepared to assume positions of major responsibility within the industry.

Findings of task forces commissioned by the American Public Transit Association (APTA) and the Metropolitan Atlanta Rapid Transit Authority (MARTA) have outlined two major needs in the transit industry: 1) opportunities for women to acquire managerial and technical skills; and 2) a "new talent pool" to fill positions vacated by the collectively aging top level management. This Institute was designed to meet those needs by improving the present managerial skills of women in the industry; illuminating attitudinal barriers to upward mobility and offering solutions to help overcome them; and exposing women to the operational or "nuts and bolts" side of the transit industry. This was accomplished through a unique industry/university approach utilizing MARTA and Georgia Institute of Technology (Georgia Tech). The success of various components as well as the Institute in its entirety was assessed by extensive evaluations which took place during the week.

INTRODUCTION

The need for the Transit Operations Institute became obvious as a direct result of two documented facts: the lack of managerial training opportunities for women and the general low-level status of women in the transit industry. The increased number of female-headed households and increases in the cost of living have contributed to women seeking employment outside the home. While more women than ever before are entering the work force, their particular under-representation in the transit industry has been the subject of much discussion and analysis.

The aim of the Institute was to provide professional growth and enhancement for women currently employed in the transit industry (primarily sub-middle-management level employees). Participants were selected from the southeast, i.e., Georgia, Florida, Tennessee, Alabama, Mississippi, North Carolina, South Carolina, Kentucky and Puerto Rico.

The Institute was designed: to provide an overview of the operations side of the workforce which women have heretofore been hindered in acquiring; to indicate logical career paths; to provide assistance in increasing the number of women entering the industry and moving up the professional/management ladder; and to improve the climate within which men and women work together in the urban transportation field.

The main concern was not to transmit all existing knowledge about every aspect of transit operations activities in one super packed week. Rather, the intent was to provide a reasonable representation of the range of functions which are needed and the skills and backgrounds which women must achieve in order to provide those functions to the industry. The Institute performed a unique role in the industry. There are a few transit-related Institutes or study sessions in operation, but they tend to reflect the historical male-orientation of the field; and the highly-advertised women's career symposia, etc. are very general in nature. Thus, women who currently desire to move ahead in the transit industry have virtually no source of assistance which is both attuned to the specific needs of women in this field, and also is technically proficient.

STATUS OF WOMEN IN THE INDUSTRY

Prior to World War II, representation of women in the transit industry was at best limited, with only a few employees in technical and clerical positions. Women were recruited to perform many traditionally male functions in the industry during the war years, but generally did not progress to managerial functions. At the conclusion of the war, most women were phased out of the industry and their absence was notable until the mid 1960's.

In an effort to evaluate the status of women in the industry the American Public Transit Association (APTA) established a Women in Transit Task Force in

1979. The task force conducted a survey of 31 transit systems throughout the country and reported its findings in the Women In Transit Task Force Report in October, 1980. (1) The task force found:

1. Females comprised 42.1 percent of the total American work force but only 13.2 percent of the transit work force.
2. Females were most represented in the "office/clerical" category with 59.9 percent of the transit work force.
3. Females were least represented in the "craftsmen" category with 1.4 percent of the transit work force.
4. Females were under-represented (less than 13.2 percent of the work force) in the following categories:

a.	Craftsmen	1.4 percent
b.	Officials/Managers	7.0 percent
c.	Technicians	15.9 percent
d.	Operators/Service	9.8 percent

In addition to the above information, survey results indicated that:

* Sixty-eight percent of the systems surveyed had no females in the craftsmen category.
* All systems had females working in the operators/service category.
* Twenty-three of the systems had 100 percent female employment in the office/clerical category.
* Thirty-seven percent of the transit systems surveyed had no females employed in the officials/managers category. (2)

These findings clearly outline the under-representation of women in the industry with the greatest deficiencies occurring in the craftsmen, officials/managers and the operators/service categories.

Women in the industry identified a number of real or perceived barriers to employment, training, and career mobility. These may be either attitudinal or functional in nature. They perceived a lack of acceptance of women in non-traditional jobs. The barriers most frequently mentioned were continuance of stereotyped ideas, negative attitudes toward women in top management positons, and educational disparities. Along functional lines respondents to the APTA Women's Survey generally expressed a desire for greater exposure to all facets of transit. Such knowledge was seen as a vehicle for enhancing mobility. To this end, the report suggested the need for training programs designed, "to have the maximum impact on the career development and aspirations of women."(3)

In September of 1982, an Announcement from the Urban Mass Transportation Administration's (UMTA's) University Research and Training Program solicited applications to develop training programs for urban transportation managers and professionals.

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1. Women In Transit Task Force Report, The American Public Transit Association, Washington, D.C. October 1980, p.4.
2. Ibid, p.8.
3. Ibid, p. 10.

Perceiving this Announcement as an opportunity to respond to the needs of women in the transit industry and to the APTA report, Dr. Catherine L. Ross, Associate Professor, College of Architecture, Georgia Institute of Technology (Georgia Tech) and Ann F. Johnson, Manager of Research and Analysis, Metropolitan Atlanta Rapid Transit Authority (MARTA), joined forces to author an application from Georgia Tech to UMTA. In July 1984, funding was granted to Georgia Tech to conduct the "Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry." An agreement was struck with MARTA to provide in-kind professional enhancement elements. MARTA was particularly interested in the Institute as a consequence of its concern for the advancement of women in-house.

The Transit Operations Institute's primary objectives were to respond to: the professional/advancement needs of women in the industry; the needs of women for technical/operational training; and fulfill the need for new managerial talent to replace the now-aging top level managers in the transit industry.

INSTITUTE TIME/TASK SCHEDULE

In order to accomplish the objectives specified above, it was determined that a week-long Institute (February 6-10, 1984) would be convened. It was directed towards women, in the Southeastern UMTA Region IV, currently employed by transportation agencies at the middle or sub-middle management level. To initiate activities a time/task plan was developed. This plan encompassed twelve general tasks, each of which involved a number of smaller sub-tasks. The project covered the time period from August 1983 through July 1984. As can be seen, there were varying degrees of immediacy attached to the tasks. The ones that needed to be to be accomplished in the initial few months included:

1. Conduct Administrative Activities - Begin initiating procedures to employ an administrative assistant and graduate research assistants and bring the project on line at Georgia Tech.

2. Detail Institute Schedule - Development of a daily schedule for the Institute.

3. Select Steering Committee - Identification of five persons to evaluate applications and select participants to attend the Institute.

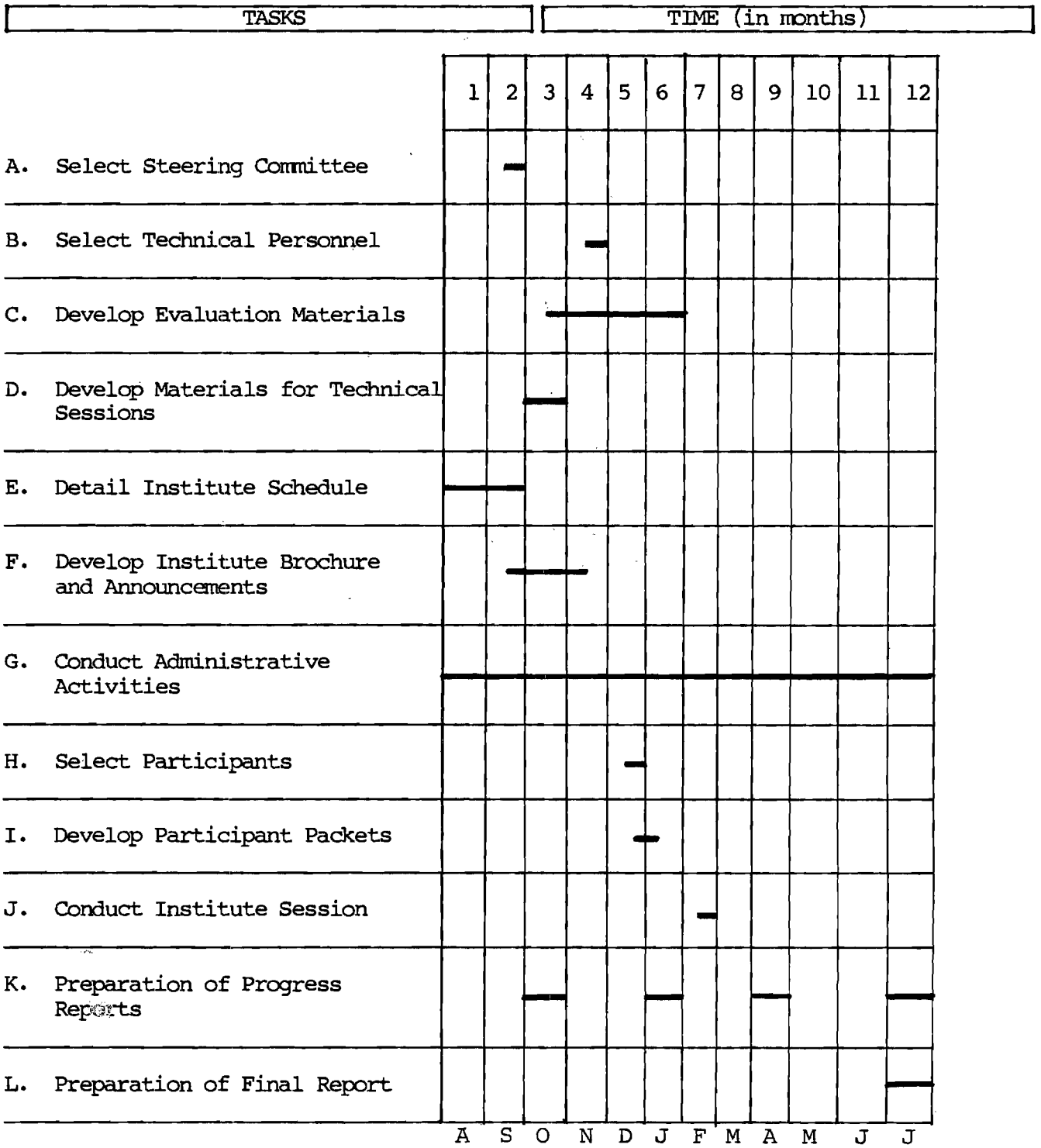
4. Develop Institute Brochure and Announcements - Development of a brochure and a one-page announcement detailing Institute activities and distribution among transit agencies in Region IV.

A timetable for the Institute is shown in Figure 1.

FIGURE I

TRANSIT OPERATIONS INSTITUTE:

TIME/TASK PLAN



INSTITUTE DESIGN AND CURRICULUM

The structure of the Institute was largely determined by the specific objectives it was designed to accomplish. While primary goals have been mentioned previously, there were a number of secondary objectives. Once these were specified, the challenge was one of organizing a program which facilitated their accomplishment. These provided initial thoughts about structure.

Secondary objectives were developed as the direct result of the identification of main issues affecting women in the transit industry. These were not limited to technical considerations, but included attitudinal problems encountered by women and other barriers to their career development. The Institute's secondary goals with corresponding methods for their accomplishment are outlined in Table I.

INSTITUTE STRUCTURE

The Institute combined the capabilities of practitioners, academicians and consultants to meet the extensive goals of providing accurate career development and professional enhancement assistance specifically oriented to the small, but growing group of women in the industry. It provided a close-up study of the operations end of the transit industry, the area which is generally recognized as the most lacking in women's professional backgrounds. In order to accomplish this, Georgia Tech and MARTA entered into a cooperative effort. MARTA provided in-kind services which included personnel to direct technical sessions, tours of its facilities, and the services of an in-house project director. Since the Institute placed great emphasis on hands-on operations, a number of site visits were scheduled to MARTA facilities. These on-site sessions generally followed a common format:

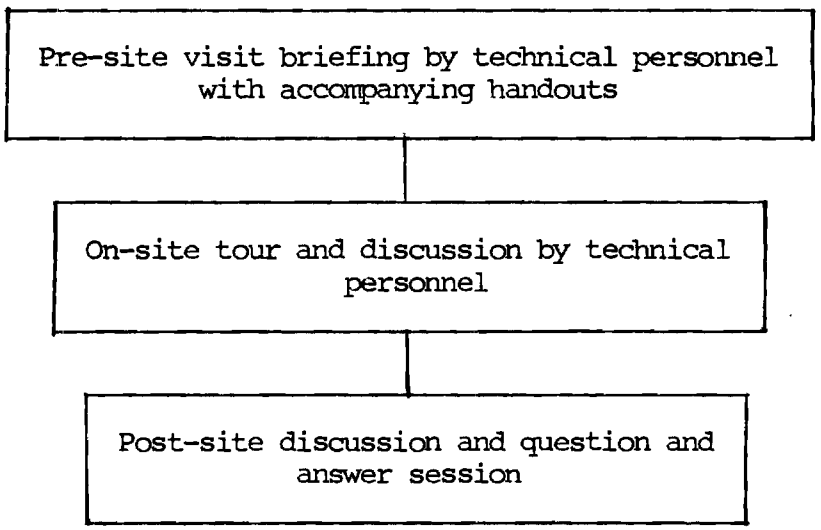


FIGURE 2. Format for On-Site Sessions

In addition to the technical information shared, topics were approached from the view point of women who might occupy various positions. In all contexts the Institute highlighted real skills requirements, and real experience requirements, while simultaneously identifying outmoded or traditional job requirements.

TABLE 1

ISSUES, OBJECTIVES, AND METHODS

ISSUE	OBJECTIVE	METHOD FOR RESOLVING PROBLEM
1. A lack of knowledge of the transit industry in general	To improve general knowledge about the transit industry	Overview instruction regarding industry in general
2. A lack of knowledge among lower level transit employees regarding their agency in general, resulting in unclear views about the planning of career paths	To provide knowledge of one major transit agency (MARTA) as a generalizable example for comparison with participants' own agencies	Instruction, visits and discussion of MARTA structure, functioning and interaction
3. A lack of knowledge among women in transit regarding career possibilities in "non-traditional" job areas	To provide information to women regarding career possibilities in urban transportation	Career guidance, individual women's career stories, and basic job sequence information provided in course session
4. A lack of appropriate technical background among women as qualification for "non-traditional" jobs	To demonstrate to women participants where and how the necessary experience can be gained, a basic qualification for moving into more responsible positions	On-site visits, verbal discussions regarding length of time needed in various on-line activities in order to more fully master them
5. Uncertainties among women regarding reaching out for positions of higher level activity and/or responsibility	To improve the confidence-level of women as they consider occupying more responsible positions	Awareness-raising regarding the sources and types of uncertainties women have entertained, combatted by both general and specific information and techniques

TABLE.1 -cont'd

ISSUES, OBJECTIVES, AND METHODS

ISSUE	OBJECTIVE	METHOD FOR RESOLVING PROBLEM
6. The existence of fears and misconceptions among men regarding women in technical and/or authoritative positions	The emergence of the graduates of the institute will provide a growing community of women with documented professionalism	Participants will take their positions throughout the industry with a new sense of their own validity and a broader understanding of the industry itself
7. The existence of common socialization/ training in womens' general background which require identifiable "counter socialization" to foster effective career performance in "non-traditional" areas	Identify modes of behavior (some of which are consistently made part of mens' socialization process) which produce more successful office relationships	Discussions, panel sessions and individual case histories, along with tools such as role-reversal, etc.
8. The overabundance of women hired into clerical positions regardless of extent and specialization in their educational background	To improve the correlation between womens' educational background and the positions they hold, also increasing the number of men hired into routine clerical positions	Raising the issue of 1) positions that women are normally considered for, whether as initial hire or internal promotion; and 2) the tendency not to hire men into clerical positions even when expressly desired by candidate
9. Documented under-utilization of women in many areas in public transportation agencies	To attract and retain greater number of women into positions formerly considered "non-traditional" jobs for women, e.g., engineering maintenance, upper management, etc.	Specifically to point out current areas of under-utilization, examining educational and experiential requirements for filling these positions, encouraging interested women to take whatever steps might be necessary to compete for them

TABLE.1 -cont'd

ISSUES, OBJECTIVES, AND METHODS

ISSUE	OBJECTIVE	METHOD FOR RESOLVING PROBLEM
10. Infrequent opportunities provided for women to travel for job-related educational purposes	To increase the numbers of women traveling for job-related education purposes, and increase the receptivity of those with whom they must come into contact -- hotel and travel personnel especially	Reserve a minimum of one-half the participant slots for persons who must travel out-of-town to attend the sessions
11. The prevailing lack of motivation for women to aspire to positions of authority in the urban transit field	To improve the motivation of women (program participants and their acquaintances) to seek to attain positions of technical activity and increasing responsibility/ authority	To have women who can serve as role models address participants. To organize discussion groups; question and answer sessions and intersperse these throughout technical sessions
12. The lack of mentors to/for women	To increase the number of professional women who 1) have an active mentor and 2) are actively mentoring a younger women	Provide information about what mentoring is (many times it exists but is not recognized as such); the value of mentoring to effective career growth; the importance of extending an effort to help others, and considerable opportunity for reflection and feedback
13. General absence of casual work-oriented information and support networks for women	To improve womens' access to and participation in the day-to-day information flow	1) Increase womens' awareness of those networks; and 2) of their value the job-effectiveness of those who are included; 3) then experiment with ways to join ongoing networks and/or create new ones

In conjunction with the technical sessions, professionals discussed issues, problems, and skills required in the performance of their various functions throughout MARTA. This information was presented through discussion sessions focusing on both technical and interpersonal aspects of women's careers within the profession. Panel discussions were structured around a presentation by women in various technical areas supported by two or three other panelists. After the presentation, an open discussion ensued. These sessions were monitored by a female psychologist trained in group interaction who helped facilitate interchange. The intended result was an enhanced understanding of what is needed in order to perform adequately in a technical capacity, an improved self-assurance in the participants regarding their own functional capabilities, and some realistic views on setting career goals.

The Institute was held at Georgia Tech in Atlanta, Georgia. The campus is located in close proximity to the administrative offices of MARTA.

RECRUITMENT AND SELECTION OF PARTICIPANTS

Recruitment of participants was accomplished through the use of three primary tools: an initial news release, an announcement flier and a brochure/application.

A news release, published by the Georgia Tech Information Bureau was disseminated to newspapers located in southeastern cities with an operating transit system. In addition, it was forwarded to national trade journals and women's magazines.

An 8 1/2 x 11 inch announcement flier describing the Institute was the second step in the publicity effort. Six-hundred fliers were distributed to transit authorities, Women's Transportation Seminar (WTS) members, elected officials, transportation organizations and other interested persons in the southeast.

A combination brochure/application was designed and printed as a reply mechanism for inquiries illicited by the news release and flier. The format was two-fold, four-panel, two-sided, with the following headings: Summary Schedule, Who Should Attend, Cost Involved, Selection Process (with key dates), and Benefits Gained. One panel served as an application form. Brochures were mailed to transit authorities, WTS members, city governments and a variety of transportation organizations is the southeast.

Although the brochure was effective, the application form, on one panel of the brochure, was not extensive enough. This became evident when the selection committee began its work. The principal consequence of not requesting more information on the application was a reduced ability to evaluate potential participants. The selection process was based on information submitted on the Institute application. This was limited to personal information, data on the number of years in the industry, positions held and reasons for wishing to attend the Institute. There was initial concern that the application form not be too extensive and this subsequently led to a situation where not enough information was requested.

The Atlanta and Washington Chapters of WTS printed articles about the Institute in their newsletters. This brought the Institute substantial publicity and resulted in its being discussed by many potential applicants.

WTS is a national professional organization whose membership is comprised primarily of women who are employed in the transportation sector. Thus, the Institute was brought into a principal network of those toward whom it was targeted.

Both the Georgia Tech Whistle, a campus newspaper, and the MARTA Transit Times carried an article on the Institute. The Transit Times is MARTA's newspaper and is routinely forwarded to other authorities. As a result, the larger transit community was informed of the upcoming Institute. While the program was given a great deal of national exposure, only women working in the southeast were eligible to participate. However, other women across the United States expressed interest in attending.

An unusual opportunity for pre-Institute publicity presented itself when Dr. Catherine Ross, Project Director, and Ann F. Johnson, Project Technical Coordinator, were invited to be the guests of Ike Newkirk on his Atlanta radio station talk show "Open Line" on Sunday morning, February 5, 1984. In discussing the Institute and responding to the questions posed by listeners, who called in, the public's awareness of the Institute's purpose and goals was heightened. During and after the Institute, articles were printed in the Atlanta Constitution, the Georgia Tech Whistle, the MARTA Transit Times, The Dekalb News/Sun and APTA's Passenger Transport.

Response to the recruitment effort was strong with 46 applications received from the 9 state Region IV area and a few others from other ineligible areas of the country. Selection of participants involved three-steps: 1) appointing a five-member selection committee; 2) developing selection criteria and; 3) convening the selection committee to finalize a class list. Appointment to the selection committee was based on a person's knowledge of transit, industry experience, organizational affiliation, and interest in human resource development. Committee members were Bobbie Ibarra, Director of Planning, Metro-Dade Transportation Administration, Miami, Florida; Ann F. Johnson, Project Technical Coordinator and Manager of Research and Analysis at MARTA; Judy Meade, University Research and Training Program, UMTA, Washington, D.C.; Catherine L. Ross, Project Director and Associate Professor of Architecture at Georgia Tech; and Robert Stanley, Director of Planning and Policy Analysis, APTA, Washington, D.C. Members agreed to seek funds from his/her agency to travel to Atlanta and finalize the selection process.

Guidelines for selecting Institute participants included:

1. Current work position
2. Geographical area
3. Racial background
4. Extent of experience in industry
5. Management potential
6. Interest in attending

A package of 46 applications was mailed to each of the committee members and they were asked to make a tentative selection of 25 class members and five alternates prior to the selection committee meeting. Only one meeting of the committee was necessary and it occurred on Friday, January 6, 1984, at Georgia Tech, in Atlanta, Georgia. One member, unable to attend, communicated her selections by telephone.

Deliberations took place from 9 a.m. until 4 p.m. Members toured facilities to be used during the course of the Institute and lunched during a two-hour break. The class list was finalized and five alternates were selected.

One week following the selection committee's meeting, participants received a package containing a congratulatory/informational letter; an updated Institute schedule summary, a map highlighting Georgia Tech, MARTA headquarters and the hotel where participants would be housed; and a confirmation of attendance card due back by January 18, 1984. Of the 25 participants notified, only one declined and an alternate was contacted.

Participants came from the following states and territories: Georgia, Florida, Alabama, South Carolina, North Carolina and Puerto Rico. They were employed in the following positions:

TABLE 2

POSITIONS HELD BY INSTITUTE PARTICIPANTS

Training Specialist	State Rideshare Coordinator
Transportation Analyst	Community Relations Officer
Contract Administrator	Finance Supervisor
Executive Director	Acting Property Manager
Administrative Assistant	Maintenance Manager
Assistant Director	Special Projects Administrator
Bus Operator	Special Projects Manager
Budget Analyst	Transportation Planner
Transit Market Analyst	Transit Customer Representative
Acting Assistant General Manager/Operations	Transportation Coordinator
Special Assistant to Puerto Rican Secretary of Transportation	

CONDUCT OF INSTITUTE

The scope and thrust of the Institute were designed in part to help fill recently expressed needs in the transit industry for new managerial personnel and simultaneously to improve utilization of women throughout all levels of the industry. Since the purpose of this Institute was to provide the widest possible exposure to all technical aspects of transit operations, a great deal of group movement was required. Further, since one of the most fundamental elements of a transit system is the usage of that system, the group utilized existing public transit (either bus, rail or both) for as many of the trips as possible. In this manner, specific experiences from the "rider" view point could be employed in discussing the transit "provider" functions. Since MARTA was the cooperating transit agency in this project, the group moved between bus operating facilities, the rail central control location, rail maintenance facility, various check points throughout the system, and the central office building by MARTA buses and trains. When public transportation was not available, the group used a charter bus.

The discussion/lecture sessions were held on the Georgia Tech campus at the Continuing Education facilities. A nearby hotel was selected for participant's lodging because of its proximity to Georgia Tech and MARTA's central offices.

Completion of this unique educational experience was recognized by the awarding of 4.0 Continuing Education Units (CEU's), from Georgia Tech, certified by a framed diploma, a dual-agency certificate issued by both MARTA and Georgia Tech and personal photographs documenting participation.

INSTITUTE STAFF

Institute staff members were involved in all aspects of the preparation, execution and follow-up activities associated with the Institute. This included the project director, Professor Catherine Ross, who had overall responsibility for the conduct of the Institute. Ann Johnson, project coordinator for MARTA, had responsibility for structuring of the technical content of the tours and coordination of the MARTA personnel involved in the Institute. In addition to these two primary staff members, two consultants were employed. Lucy Freedman, a human resource development specialist, conducted sessions on women in non-traditional roles; women in transit; career pathing; discrimination and other aspects of management skills development. Sarah Lopez, a practicing clinical psychologist, worked as a facilitator in addition to conducting presentations on time management, conflict resolution, communication within organizations and strategies for evaluation.

Susan Goodrick, administrative secretary, and two Georgia Tech graduate research assistants were also involved in all aspects of Institute activities. This included compiling mailing lists, arranging lodging, meal plans, designating classroom space, making transportation arrangements, making signage and handling communications with applicants, consultants and guest officials.

In addition, MARTA staff assisting included Julie Kell, Staff Analyst in the Department of Transit Operations; June L. Burridge, Transportation Analyst in the Department of Transit Operations; and Lauren Solomon, Affirmative Action Administrator.

INSTITUTE ORGANIZATION

The week-long Institute got underway on Sunday, February 5, 1984, with a get-acquainted session at the hotel which included introduction of the participants and distribution of the classroom and technical session materials.

Materials for the technical and classroom sessions, packaged in a 10 x 11 1/2 x 1 1/2 inch 3-ring notebook, consisted of an official daily schedule, a list of participants and their addresses, forms and information to support technical presentation (e.g., management ladder of operational units toured, and a monthly crime report for MARTA police). Additionally, management-related articles from various publications were included (e.g., Wall Street Journal, Savvy, Management Review). Also, a bibliography of transportation education programs and pertinent books and articles and evaluation forms for individual sessions and for the entire Institute were distributed to each participant. Materials were compiled according to the Institute schedule and indexed by the

day of the week. Volume II of this report contains selected materials from the notebook distributed to participants. It primarily consists of handouts which served as a basis for discussion by technical personnel.

In addition to the distribution of materials, the Sunday evening session was used as an opportunity for participants to mingle and become acquainted with each other. This initial session was attended by the UMTA grant manager as the sponsoring agency (UMTA) representative.

INSTITUTE SCHEDULE

Included in the materials distributed to each participant was a schedule of activities for the week of February 5-10, 1984 (see Table 3, sample daily schedule). Highlights of each day's activities were as follows: Monday - transit overview, tour of bus transportation facilities and introductory remarks by Lucy Freedman, consultant; Tuesday - Presentation on women in non-traditional roles, covering issues mentioned and tours of train car maintenance, central control and zone center/security; Wednesday - meetings at MARTA executive headquarters covering scheduling, evaluation and regional interaction, analysis and subsidies, customer services federal requirements and the board of directors and a reception for the participants, technical presentors and MARTA personnel involved in the planning of the Institute; Thursday - observing bus and rail operations and free-intermodal counts by traffic checkers, tours of bus heavy maintenance, bus and rail operators training center, safety instruction and rail system construction; Friday - transit management development and awards banquet.

CLASSROOM SESSIONS AND ON-SITE TOURS

The detailed daily schedule evolved from an outline contained in the grant application. The philosophy in planning the day-to-day activities was to logically unfold the inner-workings of a transit system by presenting a briefing on each operational unit for the women to gain an understanding of the male-oriented upper-level management mind-set. A number of lecture/group interaction sessions were conducted and monitored by consultants.

Efforts were made to avoid disrupting the learning curve wherever possible and meals were often scheduled together. Group movement between activities was facilitated by public transit, with the exception of a few ocassions when time constraints made it impractical and a charter bus transported the group.

Presentations by MARTA personnel technical presenters, were coordinated by Ann Johnson. Seven of the 28 presenters were female. They covered issues such as bus operations, rail operations and security, bus heavy maintenance, safety and instruction, bus/rail intermodal activity, scheduling, analysis of service, traffic checking and the board of directors.

Classroom sessions dealt with issues such as women in non-traditional roles, career-pathing, discrimination, management/personal development, communication and bureaucracies, Transit Educational (formal and informal) and professional transportation organizations. Psychotherapists Lucy Freedman of Silver Spring, Maryland, and Sarah Lopez, of Atlanta, directed some sessions, while others were conducted by the project director and technical coordinator. The two psychotherapists utilized the lecture/group interaction format.

TABLE 3

TRANSIT OPERATIONS INSTITUTE:
A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

SAMPLE DAILY SCHEDULE

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Informal orientation	Georgia Tech Registration Welcome and orientation Program overview Break Transit overview Luncheon Brady Avenue Garage Bus transportion Bus maintenance Radio room Dinner and overview of tomorrow's morning session Informal discussions	Georgia Tech Lucy Freedman on "Women in Transit" (non-traditional roles) Break Lucy Freedman Lunch Avondale Rail Station Avondale yard activities Car maintenance Central control Zone center/security Dinner Informal discussions	Marta Administration Scheduling Evaluation and Regional Interaction Break Analysis and subsidies Customer services Lunch Overview and federal requirements Board of Directors Individual discussions Reception	Arts Center Station Observe Bus and rail Free-intermodal counts Break - breakfast Browns Mill Garage Lunch Laredo Garage Break Bus tour through construction areas Lenox Square Mall (Free time)	Georgia Tech Transit Management Development Management/ Personal Development Issues Banquet

GUEST OFFICIALS

Playing an integral role in the Institute were the guest officials who participated in three of the Institute's functions. Representation of all organizations instrumental in making the Institute a reality was sought for the welcome session. This included: The Georgia Department of Transportation, Georgia Tech, MARTA, City of Atlanta government, and UMTA Regional Office and Headquarters. Technical presentors, MARTA board members and Georgia Tech officials were invited to the reception on Wednesday. At the Friday awards banquet, guests included MARTA's general manager, Georgia Tech's Associate Dean of the College of Architecture and the Director of the City Planning Program.

INSTITUTE EVALUATION

The Institute was evaluated in a number of different contexts. Specific sessions were assesed as well as the Institute in its entirety by the participant. Evaluations were conducted for:

1. Bus Operations
2. Women In Transit/Non-Traditional Roles
3. Rail Operations
4. Scheduling, Evaluation, and Public Interaction
5. Accomplishment of Participant Objective
6. General Evaluation

For bus operations, women in transit/non-traditional roles, rail operations, and scheduling, evaluation and public interation, a common evaluation format was used. Six structured questions were asked about each of these sessions with a fixed response set. Participants were encouraged to share any comments or suggestions they had by writing these on the back of the evaluation form. The questions asked are listed below:

1. The physical setting was...	excellent good fair poor
2. The length of time spent on this topic was...	more than enough about right needed more time absolutely too long
3. The presenters were...	well prepared & interesting adequately prepared & interesting adequately prepared, but boring poorly prepared
4. The organization of the information was...	excellent good fair poor

5.	The usefulness of the information was...	immediately useful may be useful later is not useful
6.	The appropriateness of the information was...	very appropriate appropriate inappropriate

Bus Operations

The majority of participants felt the physical setting for the bus operation sessions was either excellent or good with approximately 25 percent saying it was fair. This session, held in the Brady Avenue Garage, was the lead-off and helped shape participant expectations of subsequent on-site visits. One problem was the radio-room which was too small to accommodate the group comfortably. While this was somewhat unavoidable it may be beneficial to prepare participants by informing them of such situations prior to arriving. Participants generally felt the amount of time spent on the topic was adequate.

It is interesting to note that participants were evenly split between thinking presenters were well prepared and interesting, and adequately prepared and interesting, but still they offered a number of suggestions for improvement. Many felt the presenters were very knowledgeable, but inexperienced at conveying information. Additionally, some felt the session would have been more effective if they had received written copies of the presentions. This would have better oriented participants and assisted presenters in focusing their discussions. This is demonstrated by the fact that 70 percent felt the organization of the information was either good or fair, not excellent. All felt the information was useful and appropriate. There was general aggreement that the enthusiasm of the garage employees contributed much to the overall effectiveness of the session.

Women In Transit/Non-Traditional Roles

All participants agreed that the physical setting, the Continuing Education building at Georgia Tech, was either excellent or good. They were evenly split between feeling the time allocated was about right or insufficient. This indicates interest in having more time allocated to the topic. Participants generally seemed to feel they needed more information, partly because such information tends to be somewhat inaccessible to them.

Eighty-eight percent agreed that the presenter, Ms. Freedman, was well-prepared and interesting. Perhaps their interest and apparent enthusiasm is related to the importance of the topic to career development. Many responded that they frequently did not take time to evaluate additional considerations, other than their qualifications, which have implication for future positions they may wish to occupy. All agreed the organization of the material was either excellent or good in addition to being useful.

It is interesting to observe that 76 percent of those evaluating the session thought the information was very appropriate, while the remainder thought it was appropriate. A number of suggestions were made. However, it is clear that the session and the material were valued by the participants. This session was one of the most highly rated. One suggestion was for greater use of audio-visual aids and also for case studies which detail how to put various

strategies to work.

Rail Operations

Seventy percent agreed that the physical setting, the Avondale Station and railyard, was very conducive to facilitating learning about rail operations, with the remainder feeling it was good. The majority felt the time was about right with 23 percent wishing the site visit had been lengthier. Approximately 70 percent of the participants felt the presenters were well prepared and interesting. All agreed that the information was well organized, useful and either appropriate or very appropriate (84 percent). One concern was that various participants seemed to utilize a great deal of group time asking question which were so specific as not to be generalizable. Perhaps the opportunity for some individual discussion with presenters would have alleviated this.

Scheduling, Evaluation and Public Intervention

Participants generally thought the physical setting, MARTA administrative offices, was comfortable. The vast majority, agreed that the time allocated was about right. While all the participants thought the presenters were either well prepared and interesting or adequately prepared and interesting, they offered some interesting observations. A number agreed, as has been suggested previously, that the presentations should be more structured and presenters more coordinated. This is reflected by the fact that 60 percent thought the organization of the information was good with the remainder feeling it was either excellent or fair. All agreed that the information was useful and appropriate.

Again, concern was expressed for the manner in which questions were asked. Some participants felt the way in which they were handled was disruptive. They suggested holding questions until the end feeling that, in some instances, presenters would have covered the information. Two participants wished they had been given more nuts-and-bolts information on scheduling. There was general agreement, however, that MARTA personnel take a great deal of pride in the system and are eager to share their enthusiasm.

Accomplishment of Participant Objectives
General Evaluation (Objective Accomplishment)

This was one of two evaluations which focused on the Institute generally, however, they are substantially different in orientation. The purpose of this evaluation was to identify the importance of certain objectives to the participant and assess the extent to which the Institute assisted in achieving these. Ten objectives were identified and participants were asked to rate them as being of great importance, of some importance, of little importance or of no importance. After determining this, they identified the extent to which they felt these objectives were achieved. The response could be very much so, to some extent, or not at all (see Table 4).

Ninety percent of participants agreed that improving their general knowledge about the transit industry was of great importance and over 50 percent of them thought this objective was very definitely achieved with most of the remainder feeling it was accomplished to some extent. One way of accomplishing the above objective was to use MARTA as a generalizable example

TABLE 4

OBJECTIVE ACCOMPLISHMENT

OBJECTIVE	1 IMPORTANCE RATING	2 EXTENT ACHIEVED		
		Very much so	To some extent	Not at all
To improve your general knowledge about the industry.	_____	_____	_____	_____
To provide knowledge of one major transit agency (MARTA) as a generalizable example for comparison with other agencies.	_____	_____	_____	_____
To provide information regarding career possibilities in urban transportation.	_____	_____	_____	_____
To learn where and how the necessary experience can be gained, as a basic qualification for more responsible, non-traditional positions.	_____	_____	_____	_____
To improve your confidence level as you consider occupying a higher position.	_____	_____	_____	_____
To identify modes of behavior which produce more successful office relationships.	_____	_____	_____	_____

TABLE 4 - cont.d

OBJECTIVE ACCOMPLISHMENT

OBJECTIVE	[1] IMPORTANCE RATING	[2] EXTENT ACHIEVED		
		Very much so	To some extent	Not at all
To improve networks for women.	_____	_____	_____	_____
To increase the understanding of the role played by mentors in improving a woman's professional growth and attainment.	_____	_____	_____	_____
To make participants aware of the general absence of casual work-oriented information and support networks for women.	_____	_____	_____	_____
To improve access to participation in the day-to-day information networks.	_____	_____	_____	_____

for comparison with other agencies. The majority of respondents agreed this was of great importance and approximately the same number agreed this was very much accomplished.

Participants felt the provision of information regarding career possibilities was of great importance, while only 10 percent said it was of little importance. Ninety percent agreed the Institute very much provided this information. A part of this involved learning where and how the necessary experience can be gained. Responses were evenly split between those who considered this to be of great importance and those who considered it to be of some importance. However, the majority of participants, felt this objective was accomplished to some extent. This suggests more attention should be focused on identifying where experience can be gained. Although this was addressed during the conduct of the Institute, it should probably be accomplished in a more explicit manner.

Not surprisingly, the majority agreed that the improvement of one's self confidence was important in considering occupying a higher position and 80 percent agreed this was either very much accomplished or was accomplished to some extent.

Participants were evenly split between thinking that the identification of behavior which produces successful office relations was of great importance or of some importance. The majority felt the Institute was marginally successful and only accomplished this to some extent. Networking has been cited as one method for improving relations and the majority of respondents felt this was of some importance. All agreed that the Institute was either very successful or was sucessful to some extent in accomplishing this objective. Networking may result in the identification of a mentor and 75 percent of participants agreed that understanding the role of a mentor is either of great importance or of some importance. Sixty percent thought this was done to some extent, while 30 percent felt it was very much accomplished.

Twenty percent of Institute participants felt that being made aware of the absence of support networks was of little importance while 60 percent thought this was very much accomplished. While 20 percent is a minority, it does indicate some lesser significance attached to this issue. Lastly, 85 percent of participants felt improving their access to the day-to-day information networks was either of great importance or some importance. They generally felt this was achieved.

General Evaluation

This evaluation focused on assessing the Institute in its entirety (see Table 5).

Participants were generally in agreement that the Institute met their expectations (70 percent) based on the advance announcement. The remainder thought their expectations were met to some extent. About 76 percent felt there were other topics which they would have liked to have discussed. These included: vehicle insurance; office attire; clerical management; more experience sharing; and detailed overview of public transportation.

Twenty-one percent of participants thought the tours and field visits were the most helpful sessions, while 17 percent felt the two presentations of women

TABLE 5

EVALUATION: TRANSIT OPERATIONS INSTITUTE

		YES	TO SOME EXTENT	NO
1.	Did the Institute meet your expectations based on the advance announcement?	___	___	___
2.	Were there other topics you would like to have discussed?	___	___	___
3.	Which sessions did you find most helpful?	_____		
4.	Which sessions were least helpful?	_____		

		EXCELLENT	GOOD	FAIR	POOR
5.	Were the physical facilities...	____	____	____	____

Comments: _____

		EXCELLENT	GOOD	FAIR	POOR
6.	Did you find the meals to be...	____	____	____	____

Comments: _____

		EXCELLENT	GOOD	FAIR	POOR
7.	Were the hotel accommodations...	____	____	____	____

Comments: _____

in transit and management development were the most helpful. More than one-fourth thought all sessions were equally helpful. Scheduling, bus operations, and planning were also mentioned by some. Generally, participants were hesitant in identifying the least helpful session with 42 percent not selecting a least helpful session. The remaining 52 percent were split among a number of sessions these included: the welcome session; Avondale Station; bus operations; evaluation and planning; routing and scheduling; and the visit to board room.

Seventy-percent of those attending the Institute judged the physical facilities to be excellent, 24 percent thought they were good. Approximately 65 percent found the meals to be either excellent or good, while only 30 percent felt they were fair. One participant suggested there be more opportunity for those in attendance to make their own dinner arrangements. The hotel was judged to be either excellent or good by only 35 percent of those in attendance. Another 35 percent thought it was either poor or fair. Many suggested they would be willing to pay more for a better quality hotel and would have much preferred a downtown location.

Participants outlined a number of suggestions which apply across the various sessions or which they felt they did not have ample opportunity to comment on. These are listed below:

* Split into smaller groups according to the interests and needs of the participants. The group remained together through all of the Institute.

* A short orientation may be appropriate for those totally unfamiliar with transportation authorities.

* A special training Institute for MARTA personnel only. Some of those in attendance were employed by MARTA.

* Night sessions should be cancelled when there are early morning sessions following.

* Don't start earlier than 8:30 a.m.

* Give participants more time to prepare themselves before the seminar. Send information three months in advance (minimum).

* The organizers were enthusiastic and dedicated.

Staff Evaluation and Recommendations

Undoubtedly the Institute staff had the final responsibility in organizing activities during the week. Generally the staff thought the major objectives were accomplished. Perhaps the one thing they had not anticipated was the interest, enthusiasm, dedication, and appreciation expressed by those in attendance. The response to the Institute was overwhelmingly positive.

A primary, although unarticulated objective, was the creation of a situation in which both those working in the academic environment and those employed in day-to-day operations at MARTA could work together on a common undertaking. This opportunity explains the tremendous amount of enthusiasm displayed by both. The merging of both of these resulted in the conduct of an

Institute that emphasized real skills development.

As commonly occurs, a variety of recommendations may be made for the future conduct of this or a similar undertaking. Logistics is an area where a number of issues emerged. The question of lead time prior to the conduct of an activity like the Institute is probably the singularly most important consideration. Ideally, this should have been lengthened substantially. However, a number of occurences influenced this. This has direct implication for all activities. For example, better support from the Georgia Tech Continuing Education Program may have been achieved if they had been brought into the planning process sooner. This was not true for all instances where there were difficulties. There was limited space remaining so that the Institute was convened in older quarters rather than in the new Space Science Building where sessions are typically held. The room where the Institute was held was too cold and an inexperienced staff member was assigned to assist during the week, because the originally assigned, experienced staff member became ill. This person had only recently been employed and was unfamiliar with procedures. There were a number of support functions which were left to the last minute and required additional effort on the part of Institute staff because of the short time remaining before the Institute. This included: signage, the distribution of medical emergency information; and printing of special certificates.

Another important issue is the development of a more functional brochure and application form. Instead of having the brochure contain the application form, it is probably better to have a marketing brochure which identifies how to call or write for further information. Then, interested persons could be sent a much more extensive application than was used in this effort. The lack of information was fairly significant simply because the application form was too abbreviated as a result of being a part of the advertising brochure.

As the week progressed participants became weary of carrying the large notebooks to each session. The availability of a canvas bag to carry material and notebooks would have been helpful. Additionally, while the hotel with closest proximity to the campus was used, it was not within walking distance. This was particularly true given the inclement weather conditions which prevailed during the week. While participants used taxis or public transportation, a better location would have made their trips a bit easier. Also, it is a good idea to provide transportation wherever possible. It also became obvious that a microphone or voice amplifier on the bus of some sort, was necessary for the entire week's activities. Frequently, en route to different places, some member of the group could not hear. Organizers should make sure they can be heard by all participants at all times.

A number of improvements may be suggested in the presentation of material. Presenters should practice presentations and more should be done in classroom or lecture sessions. Participants needed a broader conceptual exposure to material prior to the on-site visit. Written materials distributed and discussed with participants prior to the visit would assist in remedying this. This might include mailing some material for reading purposes, prior to participants' arrival at the Institute. Also, a presenter's list should have accompanied the list of each day's activity.

A number of those in attendance felt that the opening session should have been shorter and the staff agrees with this. It is important that the opening

session be effectively run because it shapes perceptions about what is to follow. As much attention as possible should be given to assuring the conduct of an effective, well paced, enthusiastic initial session to set the tone of what is expected of and by participants.

There was tremendous support for the Institute and the market for future offerings is extensive. Many letters of support have been received and the Institute has been endorsed by numerous transportation organizations and transportation professionals.

Report No. GA-11-0015

TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

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AUGUST 1984

FINAL REPORT
VOLUME II

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16. Abstract

This report consists of selected materials from the notebook distributed to participants of the "Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry", a one-week workshop designed to provide professional growth and enhancement for women currently employed in the transit industry. An in-depth report on the results of this Institute can be found in Volume I of this report. This volume consists primarily of handouts which served as the basis for discussion by techinal personnel.

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METRIC CONVERSION FACTORS

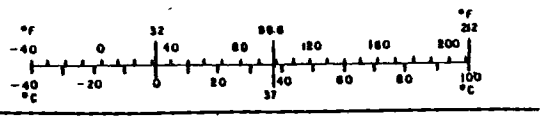
Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
		AREA		
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
		MASS (weight)		
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
		VOLUME		
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
		TEMPERATURE (exact)		
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
		LENGTH		
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
		AREA		
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
		MASS (weight)		
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
		VOLUME		
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
		TEMPERATURE (exact)		
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

EXECUTIVE SUMMARY

A week-long Institute, to strengthen the operations/management-development background of women in the transit industry, was held February, 6-10, 1984, in Atlanta, Georgia. Its purpose was to increase the number of women prepared to assume positions of major responsibility within the industry.

Findings of task forces commissioned by the American Public Transit Association (APTA) and the Metropolitan Atlanta Rapid Transit Authority (MARTA) have outlined two major needs in the transit industry: 1) opportunities for women to acquire managerial and technical skills; and 2) a "new talent pool" to fill positions vacated by the collectively aging top level management. This Institute was designed to meet those needs by improving the present managerial skills of women in the industry; illuminating attitudinal barriers to upward mobility and offering solutions to help overcome them; and exposing women to the operational or "nuts and bolts" side of the transit industry. This was accomplished through a unique industry/university approach utilizing MARTA and Georgia Institute of Technology (Georgia Tech). The success of various components as well as the Institute in its entirety was assessed by extensive evaluations which took place during the week.

Introduction

The need for the Transit Operations Institute became obvious as a direct result of two things: the lack of managerial training opportunities for women and the general status of women in the transit industry. The increased number of female headed households and increases in the cost of living have contributed to women seeking employment outside the home. While more women than ever before are entering the work force, their particular under-representation in the transit industry has been the subject of much discussion and analysis.

The aim of the Institute was to provide professional growth and enhancement for women currently employed in the transit industry (primarily sub-middle-management level employees). Participants were selected from the southeast, i.e., Georgia, Florida, Tennessee, Alabama, Mississippi, North Carolina, South Carolina, Kentucky and Puerto Rico.

The Institute was designed: to provide an overview of the operations side of the workforce which has heretofore been hindered in achieving same; to indicate logical career paths; to provide assistance in increasing the number of women entering the industry and moving up the professional/management ladder; and to improve the climate within which men and women work with each other in the urban transportation field.

The main concern was not to transmit all existing knowledge about every aspect of transit operations activities in one super packed week. Rather, the intent was to provide a reasonable representation of the range of functions which are needed and the skills and backgrounds which women must acquire in order to provide those functions to the industry. The Institute performed a unique function in the industry. There are a few transit-related institutes or study sessions in operation, but they tend to reflect the historical male-orientation of the field; and the highly-advertised women's career symposia, etc., are very general in nature. Thus, women who currently desire to move ahead in the transit industry have virtually no source of assistance which is both attuned to the specific needs of women in this field, and also is technically proficient.

INSTITUTE STRUCTURE

The Institute combined the capabilities of practitioners, academicians and consultants to meet the extensive goals of providing accurate career development and professional enhancement assistance specifically oriented to the small, but growing group of women in the industry. It provided a close-up study of the operations end of the transit industry, the area which is generally recognized as the most lacking in women's professional backgrounds. In order to accomplish this, Georgia Institute of Technology and the Metropolitan Atlanta Rapid Transit Authority (MARTA) entered into a cooperative effort. MARTA provided in-kind services which included personnel to direct technical sessions, tours of its facilities, and the services of an in-house project director. Since the institute placed great emphasis on hands-on operations, a

number of site visits were scheduled to authority facilities. These on-site sessions generally followed a common format:

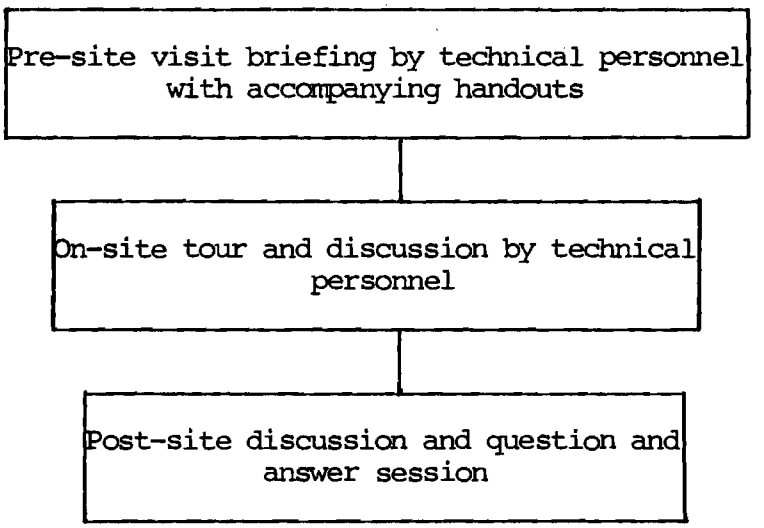

FIGURE I. Format for On-site Sessions

INSTITUTE ORGANIZATION

The week-long Institute got underway on Sunday, February 5, 1984, with a get-acquainted session at the hotel which included introduction of the participants and distribution of the classroom and technical session materials.

Materials for the technical and classroom sessions, packaged in a 10 x 11 1/2 x 1 1/2 inch 3-ring notebook, consisted of an official daily schedule, a list of participants and their addresses, forms and information to support technical presentation (e.g., management ladder of operational units toured, monthly crime report for MARTA police). Additionally, management-related articles from various publications were included (e.g., Wall Street Journal, Savvy, Management Review). Also, a bibliography of transportation education programs and pertinent books and articles and evaluation forms for individual sessions and the entire Institute were distributed to each participant. Materials were compiled according to the Institute schedule and indexed by the day of the week. Volume II contains selected materials from the notebook distributed to participants. It primarily consists of handouts which served as a basis for discussion by technical personnel.

GENERAL INFORMATION

Transit Operations Institute: A Management Development Seminar for Women in the Transit Industry

Welcome , to this unique educational and career - enhancement opportunity.

The "Women's Transit Institute" has been developed as a joint educational/experiential effort between Georgia Tech and MARTA and sponsored by UMTA to provide you the participants with a unique blend of formal personal development training along with specific transit operations-oriented career development information. The overriding goal of this endeavor is to improve the ultimate breadth of experience for a major swath of transit industry personnel who have historically been "underutilized" in their working careers. The way that this program seeks to acheive this goal is to 1) show the interaction of the various functional positions which keeps a transit system in operation, and 2) describe the content, background and potential career growth for each of those component positions. Through this seminar then, the hope is that a growing proportion of the women already employed in the transit industry can become more knowledgeable about the central operational aspects of the industry, and thereby become both more valuable to their own employing agencies as well as more capable of moving into operational positions heretofore not available to them.

In recognition of the educational values of this program, the Georgia Tech Continuing Education Program awards 4.0 Continuing Education Units (CEU's) for successful completion of the Women's Transit Institute. Standard Nine of the Southern Association of Colleges and Schools defines a continuing education unit (CEU) as ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction. According to this scale, participants who successfully complete the course will earn 4.0 CEUs. At the participant's request, the registar will supply an official transcript of CEUs awarded by Georgia Tech. An informal certificate documenting the CEU content of the Women's Transit Institute will be provided to each participant at the concluding banquet.

In addition, any expenses borne by the participant and not reimbursed by her employer are tax deductible. Treasury regulation 1.162.5 permits an income tax deduction for educational expenses (registration fees and cost of travel, meals and lodging) undertaken to: (1) maintain or improve skills required in one's employment or other trade or business, or (2) meet express requirements of an employer or a law imposed as a condition to retention of employment, rate status, or rate of compensation. Consult your tax advisor for details.

Again, welcome! It will be a strenuous week, full of movement and variety. We hope you enjoy the seminar, and prosper in your career.

"WOMEN IN TRANSIT INSTITUTE"

SCHEDULE OF ACTIVITIES

February 5-10, 1984

TRANSIT OPERATIONS INSTITUTE: A MANAGEMENT DEVELOPMENT SEMINAR FOR WOMEN IN THE TRANSIT INDUSTRY

Women in Transit Institute
Schedule of Activities

SUNDAY, FEBRUARY 5, 1984

INFORMAL ORIENTATION
7:00 p.m. - 8:00 p.m.
Place: Howard Johnson Hotel, Executive Suites I & II
Purpose: Introduction, Distribute Institute Handbook.
Refreshments: Wine and Cheese

Women in Transit Institute
Schedule of Activities

MONDAY, FEBRUARY 6, 1984

REGISTRATION (OWN TRANSPORTATION)
8:00 a.m. - 8:30 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A (3rd Floor)
Purpose: Pay Registration Fee ($100.00)
Receive: Name Tags, MARTA TransCards, Meal Tickets

CLASSROOM SESSION #1

WELCOME AND ORIENTATION TO ATLANTA
8:30 a.m. - 9:15 a.m.

PROGRAM OVERVIEW
9:15 a.m. - 9:40 a.m.

BREAK
9:45 a.m. - 10:00 a.m.

TRANSIT OVERVIEW
10:00 a.m. - 11:30 a.m.
Purpose: Transit Slide Show, Definitions, MARTA System Development, U.S. Transit Community.

PREVIEW OF AFTERNOON
11:30 a.m. - 11:45 a.m.

LUNCHEON
12:00 p.m. - 1:00 p.m.
Place: Swann Bldg., Ga. Tech., Classroom D

BOARD BUS AND TRAVEL TO GARAGE
1:05 p.m. - 1:25 p.m.

BUS TRANSPORTATION
1:30 p.m. - 2:30 p.m.
Place: Brady Avenue Garage
Purpose: Dispatch, Blockouts, Sign-Ups, Extra Board, Supervision, Displine, and Public Interaction.

BREAK
2:30 p.m. - 2:45 p.m.

(Monday continued next page)

MONDAY, FEBRUARY 6, 1984 (continued)

BUS MAINTENANCE
2:45 p.m. - 3:45 p.m.
Place: Brady Avenue Garage
Purpose: Servicing and Cleaning, Routine Inspections, Minor and Intermediate Repairs, Block-Outs, Tire Shop, Storeroom.

RADIO ROOM
3:45 p.m. - 4:30 p.m.
Place: Brady Avenue Garage
Purpose: Automatic Surveillance of Fluid Systems, Transportation Supervision, Maintenance Supervision, Bus System Security, MARTA Traffic Watch.

BOARD BUS AND RETURN TO HOTEL
4:45 p.m. - 5:00 p.m.

BOARD BUS AND TRAVEL TO RESTARUANT
5:30 p.m. - 6:00 p.m.

COCKTAILS AND DINNER WITH REVIEW SESSION AND SPEAKER
6:00 p.m. - 8:45 p.m.
Place: Sandpiper Restaurant
Speaker: Lucy Freedman

BOARD BUS AND TRAVEL TO HOTEL
8:45 p.m. - 9:00 p.m.

Women in Transit Institute
Schedule of Activities

TUESDAY, FEBRUARY 7, 1984

CLASSROOM SESSION #2 (OWN TRANSPORTATION)
8:00 a.m. to 12:15 p.m. *
Place: Swann Bldg., Georgia Tech. - Classroom A
Purpose: Women in Transit, Women in Non-Traditional Roles; Operators, Planners, Consultants; Career Pathing, Discrimination.

*Break at approximately 10:00 a.m.

WALK TO VARSITY DRIVE-IN
12:15 p.m. - 12:30 p.m.

LUNCH AT VARSITY DRIVE IN
12:30 p.m. - 1:30 p.m.

TRAVEL TO AVONDALE STATION ON MARTA RAPID RAIL
1:30 p.m. - 2:00 p.m.

TAKE TRAIN INTO YARD AREA
2:00 p.m. - 2:20 p.m.
Place: Avondale Station Platform, To Be Announced.
Purpose: Observe yard activities, to disembark from end door of car to ground level.

CAR MAINTENANCE BUILDING
2:30 p.m. - 3:30 p.m.
Purpose: Car Maintenance, Signal Maintenance, Maintenance of Right-of Way.

BOARD BUS AND TRAVEL TO CENTRAL CONTROL
3:30 p.m. - 3:40 p.m.

CENTRAL CONTROL
3:40 p.m. - 5:00 p.m.
Purpose: System Structures and System Surveillance (Rail Transp.) Electronic System Maintenance (Fare Gates, CCTV, Radios).

ZONE CENTER/SECURITY
5:00 p.m. - 5:30 p.m.
Purpose: Rail System Security, CCTV Center.

(Tuesday continued next page)

TUESDAY, FEBRUARY 7, 1984 (continued)

BOARD BUS AND TRAVEL TO DINNER
5:30 p.m. - 5:50 p.m.

COCKTAILS AND DINNER
5:50 p.m. - 7:45 p.m.

BOARD BUS AND RETURN TO HOTEL
7:45 p.m. - 8:00 p.m.

Women in Transit Institute
Schedule of Activities

WEDNESDAY, FEBRUARY 8, 1984

COFFEE AND DANISH
8:00 a.m. - 8:15 a.m.
Place: Peachtree Summit Bldg. (Located at Civic Center Station), 23rd Floor, Conference Room 23-E.

INTRODUCTION
8:15 a.m. - 8:45 a.m.

SCHEDULING
8:45 a.m. - 9:30 a.m.
Purpose: Bus and Rail Scheduling Process, Run Cutting/Labor Contract, Special Services.

EVALUATION AND REGIONAL INTERACTION
9:30 a.m. - 10:15 a.m.
Purpose: Traffic Checking, Shelters, Planning.

BREAK
10:15 a.m. - 10:30 a.m.

ANALYSIS AND SUBSIDIES
10:30 a.m. - 11:15 a.m.
Purpose: Routine Analysis, Major Projects, Fares and Subsidies.

CUSTOMER SERVICES
11:15 a.m. - 12:00 p.m.
Purpose: Public Hearings, Service Requests, Public Information.

LUNCH (ON OWN)
12:00 p.m. - 2:00 p.m.
Suggestion: Rapid Rail to Peachtree Center.

OVERVIEW AND FEDERAL REQUIREMENTS
2:00 p.m. - 2:45 p.m.

QUESTIONS
2:45 p.m. - 3:30 p.m.

BOARD OF DIRECTORS
3:30 p.m. - 4:00 p.m.
Purpose: Individual Responsibilities and Board Responsibilities.

(Wednesday continued on next page)

WEDNESDAY, FEBRUARY 8, 1984 (continued)

INDIVIDUAL DISCUSSIONS
4:00 p.m. - 5:00 p.m.

RECEPTION
5:00 p.m. - 6:30 p.m.
Place: Summit Club, Peachtree Summit Building, 2nd Floor.
Purpose: Casual conversation with Institute Personnel and Tour Presentors. Hors d'ourves and two punches served, cash bar available.

Women in Transit Institute
Schedule of Activities

THURSDAY, FEBRUARY 9, 1984

BOARD BUS
7:00 a.m. - 7:10 p.m.

TRAVEL TIME TO ARTS CENTER STATION
7:15 a.m. - 7:30 a.m.

ARTS CENTER STATION
7:30 a.m. - 8:30 a.m.
Place: Arts Center Station
Purpose: Observe Bus and Rail Operations, and Free-Intermodal counts by Traffic Checkers.

TRAVEL FROM ARTS CENTER STATION TO BREAK
8:30 a.m. - 9:00 a.m.

BREAK AT MCDONALD'S RESTAURANT
9:00 a.m. - 9:20 a.m.

BROWNS MILL ROAD GARAGE
9:30 a.m. - 10:00 a.m.
Place: Browns Mill Garage
Purpose: Materials and Supplies Purchasing Procedures.

10:00 a.m. - 11:30 a.m.
Purpose: Heavy Maintenance

BOARD BUS AND TRAVEL TO LUNCH
11:30 a.m. - 11:45 p.m.

LUNCH AT MORRISON'S CAFETERIA
11:45 a.m. - 12:40 p.m.

TRAVEL TIME TO LAREDO DRIVE GARAGE
12:45 p.m. - 1:15 p.m.

LAREDO DRIVE GARAGE
1:15 p.m. - 3:30 p.m.
Place: Laredo Drive Garage
Purpose: Transfer Room; Bus and Rail Operator Training and Safety Instruction.

BREAK
3:30 p.m. - 3:45 p.m.

(Thursday continued on next page)

THURSDAY, FEBRUARY 9, 1984 (continued)

BUS TOUR THROUGH CONSTRUCTION AREAS
3:45 p.m. - 5:15 p.m.
Purpose: View Rail System Construction.

TRAVEL TIME TO LENOX SQUARE MALL
5:15 p.m. - 5:30 p.m.

SHOPPING, ETC.
5:30 p.m. - 6:30 p.m.

BOARD BUS AND RETURN TO HOTEL (OPTIONAL)
6:30 p.m. - 7:00 p.m.

Women in Transit Institute
Schedule of Activities

FRIDAY, FEBRUARY 10, 1984

CLASSROOM SESSION #3

CHECK OUT OF HOTEL AND PLACE BAGGAGE IN SAFE ROOM

TRANSIT MANAGEMENT DEVELOPMENT
8:00 a.m. - 9:00 a.m.
Place: Swann Bldg., Ga. Tech, Classroom A
Purpose: Transit Education - Formal and Informal, Transportation Professional Organizations, Women in the Transit Industry.

9:00 a.m. - 12:30 p.m. *
Purpose: Management/Personal Development Issues, Time Management, Conflict Resolution, Bureaucracies, Communications, Women's Issues, Job Requirements, Role Playing, Evaluation.
Speaker: Sarah Lopez

*Break at approximately 10:00 a.m.

EVALUATIONS
12:30 p.m. - 1:00 p.m.

BOARD BUS AND TRAVEL TO BANQUET
1:00 p.m. - 1:15 p.m.

AWARDS BANQUET
1:15 p.m. - 2:45 p.m.
Place: Sierra Room, Top of Merchandise Mart (Peachtree St./Harris St.)
Purpose: Lunch and Certificate Presentation.

BOARD BUS AND RETURN TO HOTEL
2:45 p.m. - 3:00 p.m.

TRANSIT OPERATIONS INSTITUTE
February 6-10, 1984

INSTITUTE STAFF

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Susan M. Goodrick, Administrative Assistant

Cecilia Ho, Graduate Research Assistant

Inga Kennedy, Program Coordinator/Continuing Education

Robin Rierdan, Graduate Research Assistant

Siddhartha Sen, Graduate Research Assistant

MARTA STAFF ASSISTING

June L. Burridge, Transportation Analyst I

Julie Kell, Staff Analyst for the AGM/DTO

Lauren Solomon, Affirmative Action Administrator

MONDAY

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

KEY DATES

November 6, 1971	Referendum passed
February 17, 1972	Purchase A.T.S.
March 1, 1972	Fare Reduced to 15¢
April 1, 1972	Sales Tax Collection begins
February 19, 1975	Construction ground-breaking (Arizona Ave.)
March 1, 1979	Fare Increase to 25¢
June 30, 1979	East Line Rail Service Open*
October 13, 1979	East Line Bus Feeder Routes begin
December 22, 1979	West Line Rail Service Open (includes Five Points)
June 7, 1980	West Line Bus Feeder Routes begin
July 26, 1980	Fare Increase to 50¢
July 1, 1981	Fare Increase to 60¢
December 4, 1981	North-South Line Rail Service Open (Garnett St. to N. Ave.)
September 11, 1982	South Line extended to West End Station--Peachtree Center Station along North Line also opened
September 18, 1982	South Line Bus Feeder Routes begin
December 18, 1982	North Line extended to Arts Center Station
January 8, 1983	North Line Bus Feeder Routes begin

* 4 years, 5 months, 11 days after ground breaking. By comparison BART & WMATA took 6½ years, Miami 7 years, and Baltimore longer.

GLOSSARY
OF
TRANSIT TERMINOLOGY

Sources

MARTA
Division of Service Planning and Scheduling

Georgia Department of Transportation
Division of Mass Transportation

Glossary of Urban Public Transportation Terms
Special Report 179
Transportation Research Board,
National Academy of Science

This purpose of this glossary is to provide a listing of terms you might encounter while participating in this course.

A-CAR	A rail car having a control cab at one end and including an air compressor; the A-Car operates in conjunction with a B-Car to form a married pair.
ACCESS TIME	Time required to walk or drive to and from the transit stops, plus a waiting time based on frequency of transit service.
ALLOWANCE	Pay time required to satisfy minimum daily or piece pay hour requirements.
A.M. PEAK	Period in morning when demand for transportation service or facilities is heaviest. Usually 1 1/2 to 3 hours.
AMERICAN PUBLIC TRANSIT ASSOCIATION (APTA)	A voluntary organization of transit-related interests for the benefit of the industry.
ARTICULATED BUS	An extra long bus with rear portion flexibily, though permanently, connected to the forward portion. No interior barrier to movement between two halves.
ATLANTA REGIONAL COMMISSION (ARC)	The metropolitan planning organization (MPO) for the Atlanta Region.
B-CAR	Operates in conjunction with the A-Car to form a married pair; the control cab on the B-Car is located at the opposite end from where the cab in located on the A-Car, and is not equipped with with an air compressor.
BASE	The non-rush hours of the weekday (at MARTA 9:00 a.m. - 3:30 p.m.).
BLOCK	The composite of trips assigned to a vehicle for a day of operation.
BLOCK-OUT	The assignment by maintenance personnel of each bus to a particular piece of work (run) for the next day's operation.

BUS LANE	A street or highway lane intended primarily for buses, either all day or during peak hours, but which other traffic may use under certain circumstances, e.g. making a right turn. Also see busway. Definition by Parsons, Brinckerhoff, Quade, and Douglas.
BUSWAY	A special roadway designed for exclusive or predominant use by buses in order to improve bus movement and bus passenger travel times; it may be constructed at, above, or below grade and may be located in separate rights-of-way or within highway corridors.
C-CAR	A single car equipped with a cab at both ends, capable of operating singly.
CAPACITY	The number of passengers that can be transported over a given section of a transit line in one direction during a given time period (usually one hour) under prevailing traffic conditions. Definition by Kaiser Engineers.
CAPTIVE RIDERS	Riders who, due to circumstances, have no other means of transportation.
CENTER PLATFORM STATION	A transit station with one platform located between two tracks. Definition by Kaiser Engineers.
CENTERAL BUSINESS DISTRICT (CBD)	The downtown retail trade area of a city or an area of very high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels, and services.
CENTROL CONTROL	The radio base communication center that monitors the action of a rail system.
CHICAGO TRANSIT AUTHORITY'S "TECHNICAL INSTITUTE" (CTATI)	A one-week study course on transit operations conducted by CTA personnel.
CHOICE RIDERS	Those who choose transit even though they have a driver's license and an automobile available for their use.
CONSIST	(1) The makeup or composition of a train of vehicles; their number and specific identity.
COUNTS	Number of passengers on a vehicle at a time point.

CORRIDOR	A geographic area comprising a broad band following a general directional flow. A patronage drainage area contributing vehicles or passengers to highways or transit lines. Definition by Parson, Brinckerhoff, Quade, and Douglas.
COUPLER	The mechanical knuckle or other means by which vehicles are locked together.
COUPLING	The means or linking vehicles together to form a train.
DEADHEAD	To move a revenue vehicle without passengers or cargo on board, e.g. on a regular route, to and from a garage, or from the end of one revenue trip to the beginning of another.
DISPATCHING	The process of starting a vehicle into revenue service.
DWELL TIME	The time a vehicle or train requires to discharge and take on passengers at a station (including opening and closing doors) and time spent standing in station.
EXPRESS SERVICE	Service providing higher speed with fewer stops than generally exist on other portions of the system or on the same route. Function is to traverse fairly long distance as speedily as possible.
FEEDER SYSTEM	Part of the family of vehicles used to bring passengers to or from the rapid rail system. May include conventional buses and/or demand-responsive systems.
GUIDEWAY	Supporting physical structure in or upon which vehicles travel. It may include guidance of the vehicle.
HEADWAY	(1) Time interval measured front-to-front between two vehicles traveling in the same direction on the same route. (2) Distance between vehicles or trains expressed either in units of time or in distance, measured from nose-to-nose, not from tail-to-nose, at a stated speed.
HEADWAY SHEET	A listing of one-way trips in sort by time point - including train number.

KISS 'N RIDE	Facilities close to the transfer point at transit stops or terminals allowing the transit user to be dropped-off-from and picked-up-by an automobile.
LAYOVER	Time allowed at a terminal between arrival and departure for turning vehicles, recovery of delays, and preparing for return trip. Definition by Chicago Transit Authority.
LAYOVER TIME (TURNAROUND TIME) (RECOVERY TIME)	Vehicle time at line terminal out of service.
LINE CAPACITY	The hourly volume that could be carried if every vehicle operated at the minimum headway which the control system permits. Definition by Robert F. Casey, Transportation System Center.
LINKED PASSENGER TRIP	A complete passenger movement on public transportation from the point of entry to the system, to the point of exit from the system, irrespective of how many transfers are necessary to reach that destination.
LOCAL	A passenger or freight train or bus which stops at every station.
MARRIED PAIR	Two rail cars which must be operated as a unit, i.e., A-Car and B-Car. Definition by Boeing Vertol Co.
MAXIMUM LOAD POINT (MLP)	The time point on a bus or rail line at which the passenger volume is the greatest (one in each direction).
METROPOLITAN PLANNING ORGANIZATIONS (MPO)	The organization designated by the Governor responsible, together with the State, for comprehensive, coordinated, and continuing transportation planning. This organization shall be the forum for cooperative decision-making by principal elected officials of general local government.
P.M. PEAK	Period in the afternoon when demand for transportation service or facilities is heaviest usually 2 to 3 hours.
PAY-TIME (PAY HOURS)	The equivalent straight time paid for any piece of work.
PEAK HOUR	The sixty minute period during an average weekday when the greatest number of people travel past a specific point on a specific route. Definition by Parsons, Brinckerhoff, Quade, and Douglas.

PEAK PERIOD	The period during the day when demand for transit service is the greatest. Definition by Kaiser Engineers.
PLATFORM	(1) Rail Station: space provided for passengers to collect, wait, board and deboard trains. (2) bus and rail operators' work stations — bus operators' seat location, train operators' work location (in cab).
PLATFORM TIME	The time a driver is on her/his assigned vehicle.
PROPULSION	Any of several means of effecting motion to a vehicle or train.
PULL-IN	The time a vehicle arrives at the garage.
PULL-OUT	The time a vehicle departs the garage.
RAIL RAPID TRANSIT	Trains of passenger-carrying vehicles propelled by on-board electric motors drawing their power from an electrified third rail or other external power source. May use steel wheels on steel rails or pneumatic tires on wooden, steel, or concrete guideways. Has exclusive right-of-way.
RECOVERY TIME	Extra time scheduled at the outer terminals of a transit route to allow for rest stops and to help make up lost time.
RELIEF POINT	Designated time point on a line other than garage, at which one driver is replaced by another. Lunch, if any, included in layover.
REPORT (SHOW-UP) TIME	Time paid for "start-of-work" preparation (Ex: 10 minutes before pullout).
REVENUE PASSENGERS	Passengers paying a fare, boarding service to begin a transit trip; the same as "linked passengers".
REVENUE SERVICE	(1) Line service operations excluding deadheading or layovers. (2) Any service scheduled for passenger trips.
RIGHT-OF-WAY	That land area or other space upon which a guideway (including stations, terminals, etc.) is placed, inlcuding zones required for safe, efficient operation of the system or systems.

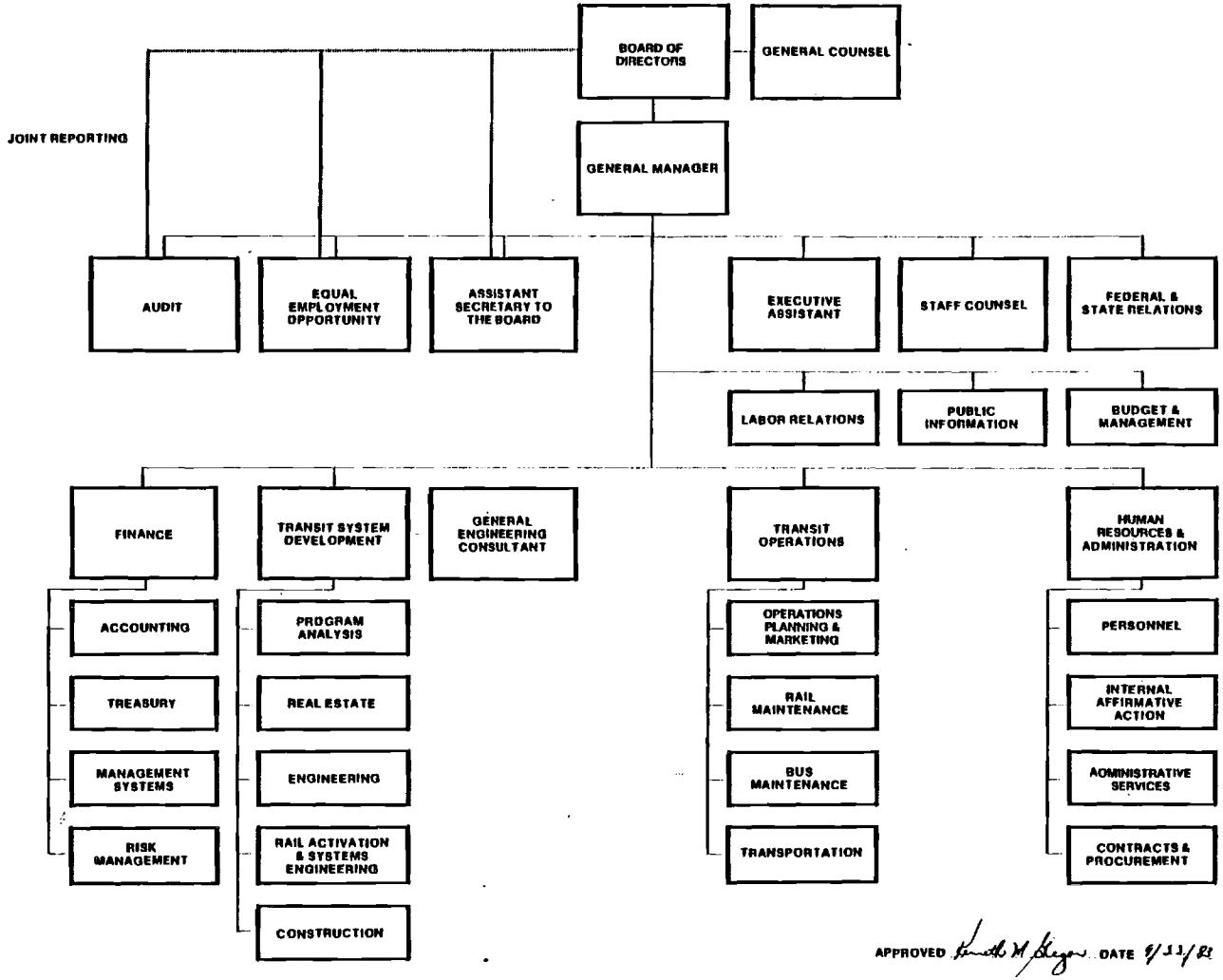
ROUTE	(1) The course followed by a scheduled transit vehicle as a part of a transit system. Definition by Parsons, Brinckerhoff, Quade, and Douglas.
RUN	The composite of trips or partial trips assigned to a driver for a day of operation.
RUNNING TIME	Vehicle travel time between time points along a revenue service route.
RUSH HOUR	Refers to A.M. or P.M. peak or to both periods combined.
SECTION 15 REPORT	Standardized report of transit operating and financial data required by UMTA to be filed annually in order to qualify for receipt of federal operating assistance and certain other funds.
SERVICE FREQUENCY	Number of vehicles moving in the same direction that pass a given point on a route within a specified interval of time. Definitions by Chicago Transit Authority.
SHUTTLE SERVICE	A service operating between two major activity centers as demand for rides dictates.
SIDE PLATFORM STATION	A transit station with the tracks or guideways located between two platforms.
SIDING	A length of track adjacent or parallel to the main track connected by switches at each end used for meeting or passing trains. Definition by U.S. Army Transportation School.
SPREAD	The total time between the pull-out and pull-in of a driver work schedule.
STANDARD METROPOLITAN STATISTICAL AREA (SMSA)	A county or group of counties containing at least one city (or twin cities) of 50,000 or more population, plus any adjacent counties which are metropolitan in character and economically and socially integrated with the central county or counties.
STRAIGHT RUN	A driver work schedule that is a single piece of work, not broken as in a "split run".
SUBWAY	(1) Any Rail Rapid Transit having a good portion of its exclusive Right-Of-Way in a tunnel. (2) Also the tunnel itself.

SWING	The time period or break between the two pieces of a two piece run.
SWING RUN, SPLIT RUN	A driver work schedule approximately 8 hours long with an extended swing and spread time.
TERMINAL	(1) Physical end - point of a bus route or rail line. (2) An area or building serving a transportation facility for the picking up, transfer, or discharge of passengers or goods. Definition by Canadian Good Roads Association.
THIRD RAIL	The metal rail through which electric current is conducted to a transit vehicle.
TIME POINT	Specific location on a line at which vehicle arrival times are scheduled.
TOTAL PASSENGERS	The sum of revenue passengers plus transfer passengers; the same as "unlinked passengers".
TRANSFER	(1) The act of moving from one transit vehicle to another (sometimes requiring additional fare payment) in order to complete a one-way transit trip; (2) an annotated ticket or other indicator of the fact that a fare has been paid; to validate the boarding of a subsequent vehicle.
TRANSFER PASSENGERS	The persons who make a transfer in order to complete a one-way transit trip; each subsequent boarding is counted as an additional transfer passenger.
TRAVEL TIME	Time paid for an operator to travel between relief points and the garage.
TRIP	A one-way movement of a vehicle in service along a line between terminal points.
TRIPPER	A driver work schedule approximately one to three hours long.
TWO PIECE RUN	A driver work schedule approximately 8 hours long with unpaid break off the vehicle.
UNLINKED PASSENGER TRIP	This occurs <u>each</u> time a passenger boards a transit vehicle.
URBAN MASS TRANSPORTATION ADMINISTRATION (UMTA)	The arm of the U.S. Department of Transportation which oversees transit operations nationwide.

WOMEN'S TRANSPORTATION SEMINAR (WIS)	A professional organization of women engaged in any element of the transportation industry; chapters exist in 13 cities currently, plus an at-large membership in other areas.
YARD	System of tracks within defined limits provided for making up trains, storing cars, and other purposes; over which movements not authorized by timetables or trains order may be made subject to prescribed signals and rules or special instructions. Definition by U.S. Army Transportation School.

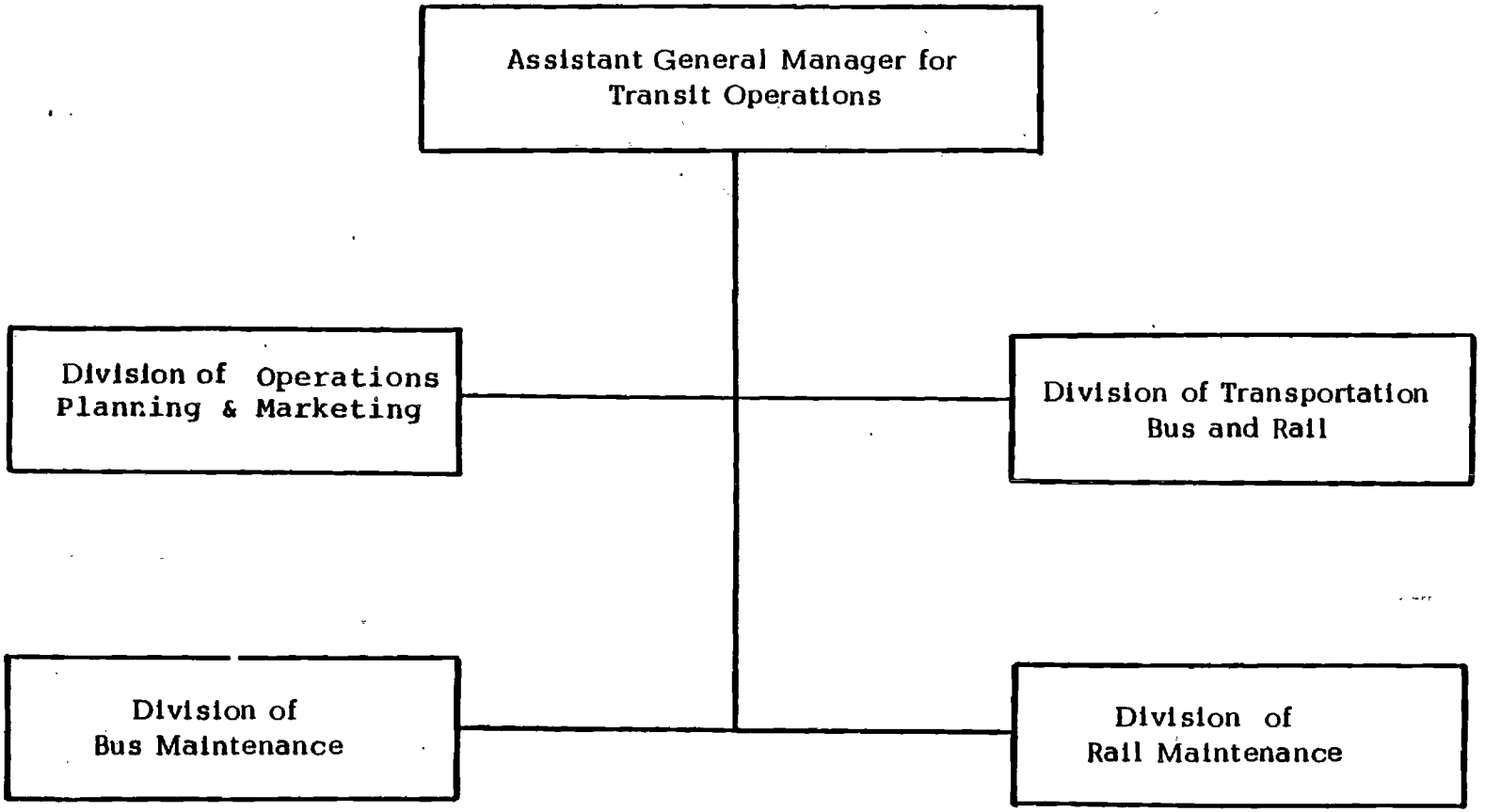
Other Definitions:

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY



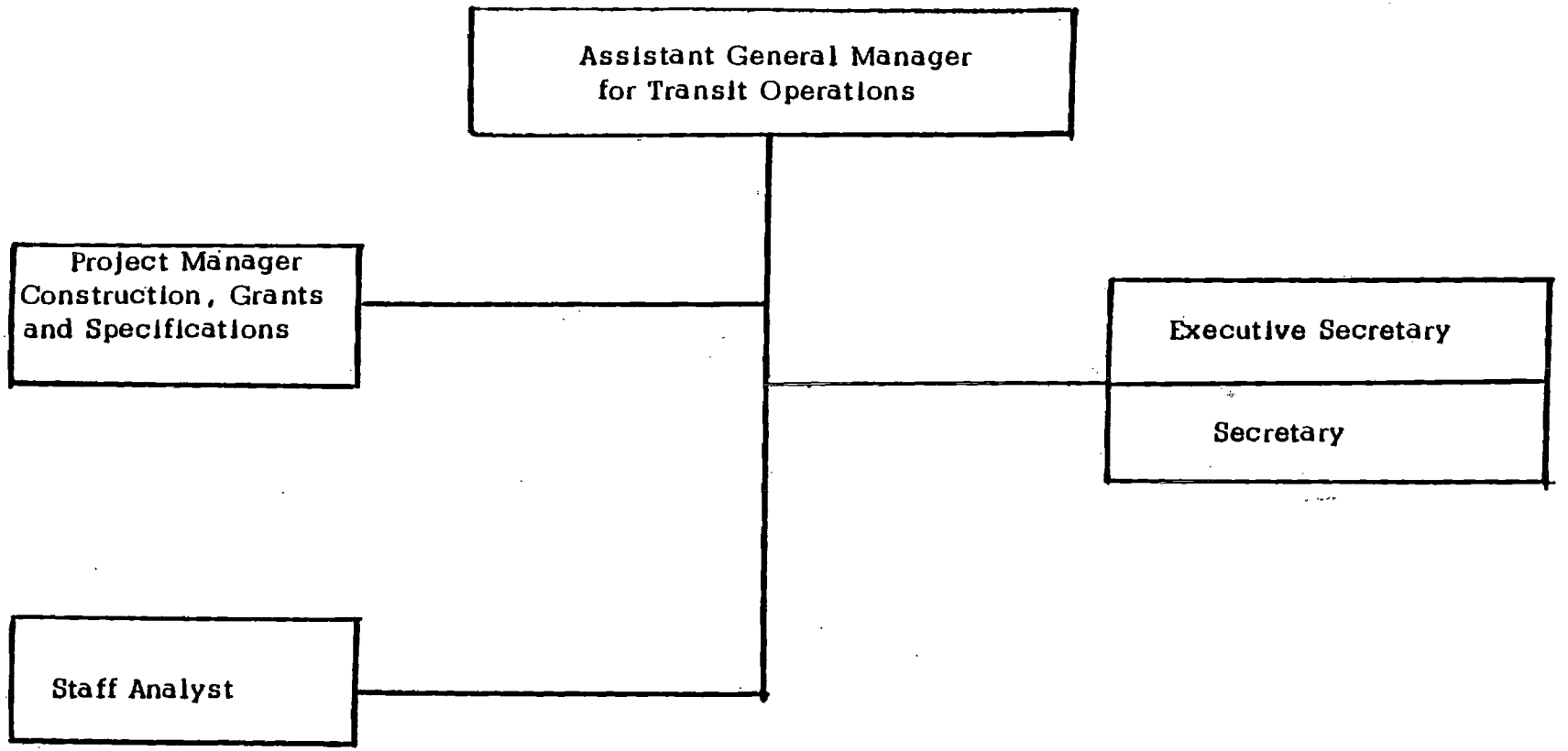
APPROVED Kenneth M. Logan DATE 9/11/81

DEPARTMENT OF TRANSIT OPERATIONS

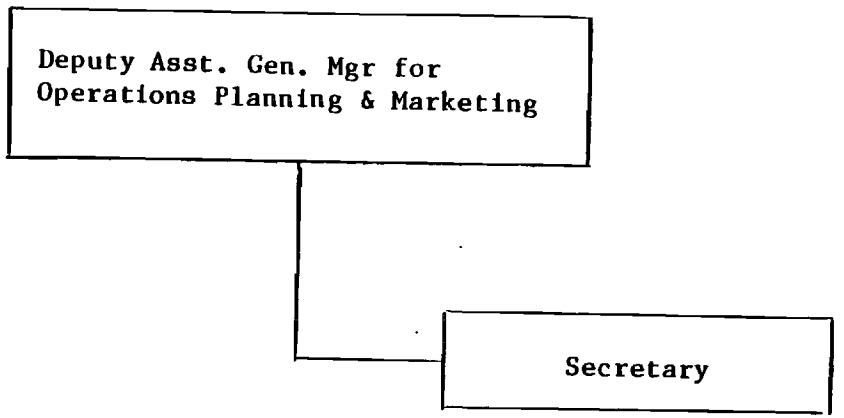


3 Non-Represented Positions
5 Total Positions

OFFICE OF THE ASSISTANT GENERAL MANAGER FOR TRANSIT OPERATIONS



OFFICE OF DEPUTY ASSISTANT GENERAL MANAGER FOR OPERATIONS PLANNING AND MARKETING



MARTA STAFF COMPOSITION
June 1983

	FEMALE	MALE	TOTAL
BOARD OF DIRECTORS	2 (14%)	12 (86%)	14
GENERAL MANAGER	-0-	1 (100%)	1
SENIOR STAFF MEMBERS			
Executive Assistant	-0-	1 (100%)	1
Assistants to the General Manger	-0-	4 (100%)	4
Assistant General Managers	1 (25%)	3 (75%)	4
TOTAL NUMBER	1 (11%)	8 (89%)	9
DIRECTORS			
Directors	4 (21%)	15 (79%)	19
Assistant Directors	1 (33%)	2 (67%)	3
TOTAL NUMBER	5 (23%)	17 (77%)	22
GENERAL MANAGERS OFFICE			
Managers	2 (29%)	5 (71%)	7
Professionals/Supervisors	11 (32%)	23 (68%)	34
Clericals/Technicians	13 (100%)	-0-	13
DEPARTMENT TOTALS	26 (48%)	28 (52%)	54
TRANSIT SYSTEM DEVELOPMENT			
Project Managers	-0-	3 (100%)	3
Managers	1 (5%)	18 (95%)	19
Professionals	16 (26%)	45 (74%)	61
Technicians	-0-	4 (100%)	4
Clericals	17 (100%)	-0-	17
Servicepersons	1 (50%)	1 (50%)	2
DEPARTMENT TOTALS	35 (33%)	71 (67%)	106

MARTA STAFF COMPOSITION
JUNE 1983

	FEMALE	MALE	TOTAL
FINANCE			
Managers	1 (14%)	6 (86%)	7
S'visors/Professionals/Administrative	30 (48%)	33 (52%)	63
Clericals/Technicians	45 (71%)	18 (29%)	63
DEPARTMENT TOTALS	76 (57%)	57 (43%)	133
HUMAN RESOURCES & ADMINISTRATION			
Managers	6 (50%)	6 (50%)	12
Professionals/Supervisors	20 (63%)	12 (37%)	32
Clericals/Technicians	33 (57%)	25 (43%)	58
Servicepersons	-0-	5 (100%)	5
DEPARTMENT TOTALS	59 (55%)	48 (45%)	107
TRANSIT OPERATIONS (OPM)			
Managers	2 (40%)	3 (60%)	5
Supervisors/Chiefs	5 (63%)	3 (37%)	8
Professionals	11 (46%)	13 (54%)	24
Clericals/Technicians	32 (78%)	9 (22%)	41
SUBTOTAL	50 (64%)	28 (36%)	78
TRANSIT OPERATIONS (BUS)			
Managers/General Foremen	1 (5%)	19 (95%)	20
Supervisors	1 (4%)	25 (96%)	26
Foremen	-0-	32 (100%)	32
Chiefs	-0-	3 (100%)	3
Professionals	1 (17%)	5 (83%)	6
Clericals/Technicals	15 (88%)	2 (12%)	17
Bus Operators	114 (10%)	1,046 (90%)	1160
Dispatchers	2 (12%)	14 (88%)	16
Mechanics	1 (1%)	199 (99%)	200
Apprentices	1 (1%)	92 (99%)	93
Servicepersons	19 (29%)	47 (71%)	66
SUBTOTAL	155 (9%)	1,484 (91%)	1,639

MARTA STAFF COMPOSITION
JUNE 1983

TRANSIT OPERATIONS (RAIL)

Managers/General Foremen	-0-	8 (100%)	8
Supervisors	1 (4%)	23 (96%)	24
Foremen	-0-	22 (100%)	22
Chiefs	-0-	2 (100%)	2
Professionals	2 (18%)	9 (82%)	11
Clericals/Technicial	8 (100%)	-0-	8
Rail Operators	1 (1%)	67 (99%)	68
Dispatchers	1 (1%)	9 (99%)	10
Mechanics	3 (4%)	82 (96%)	85
Apprentices	2 (5%)	38 (95%)	40
Servicepersons	33 (43%)	44 (57%)	77
Protective Service Workers	16 (24%)	52 (76%)	68
SUBTOTAL	67 (16%)	356 (84%)	423
DEPARTMENT TOTAL	272 (13%)	1868 (87%)	2140

BUS

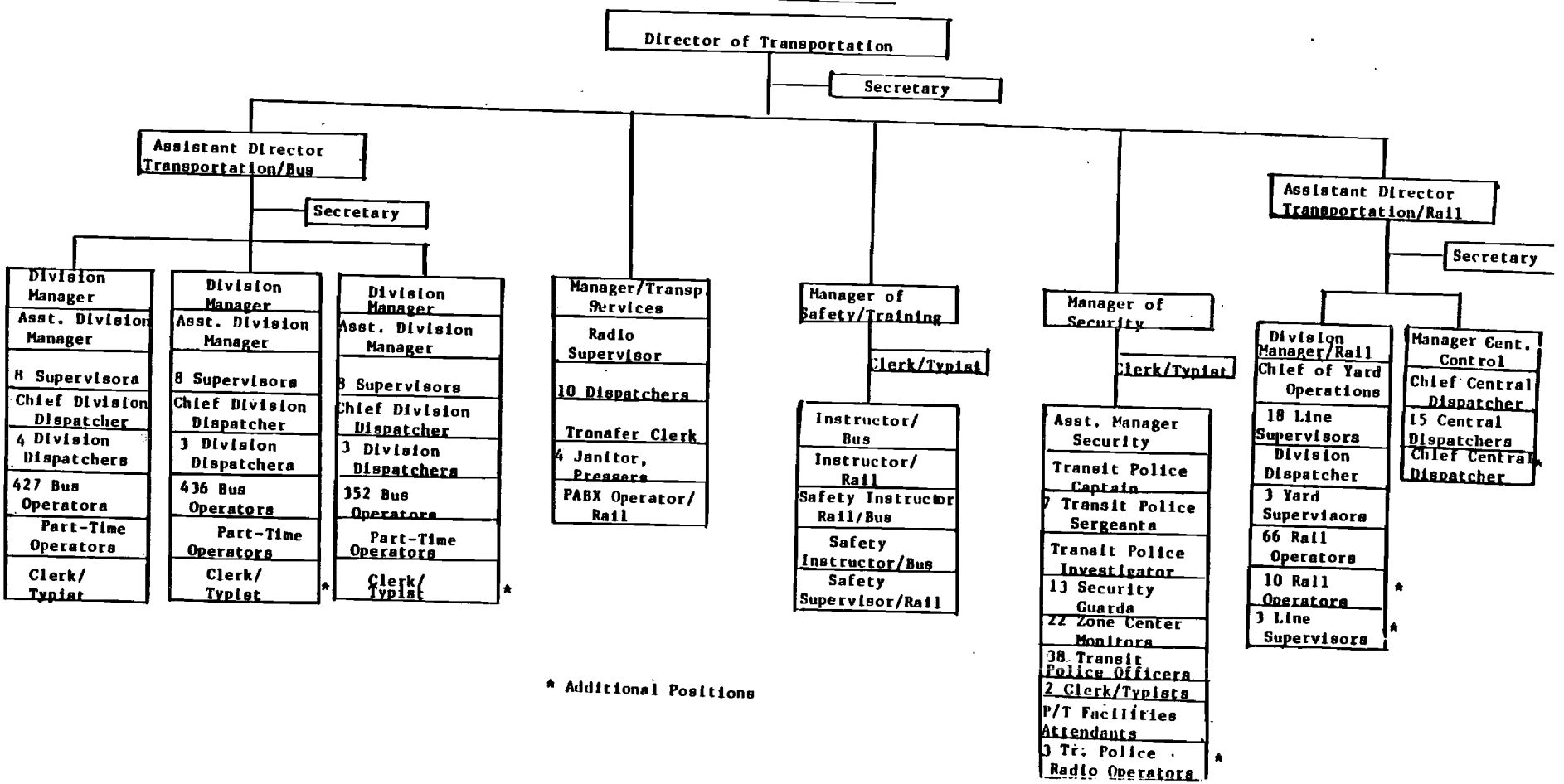
62 Non-Represented Positions
1,224 Represented Positions
1,286 Total Positions

RAIL

101 Non-Represented Positions
116 Represented Positions
217 Total Positions

153 Non-Represented Positions
1,340 Represented Positions
1,503 Total Positions

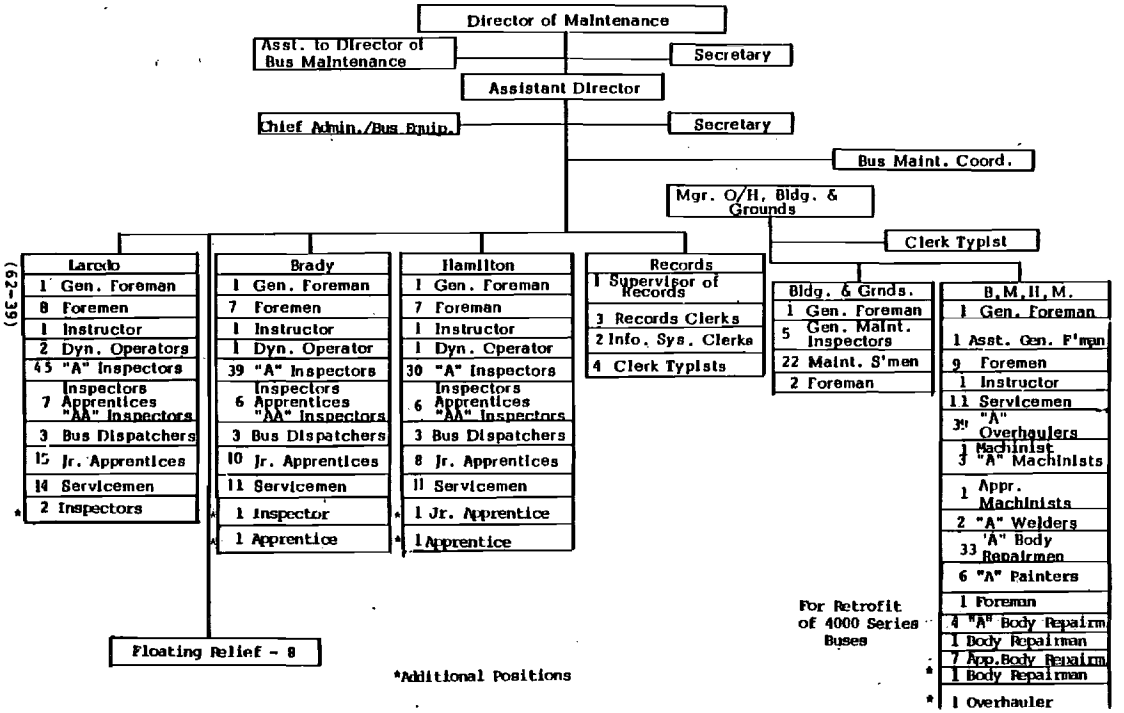
DIVISION OF TRANSPORTATION



* Additional Positions

DIVISION OF BUS MAINTENANCE

52 Non-Represented Positions
377 Represented Positions
429 Total Positions



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METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
BUS OPERATIONS

ROUTE ASSIGNMENT BY DIVISION
AND
DAY OF OPERATION

A DIVISION

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
3 (2)	Irwin St. - MLK Jr. Dr.	X	X	X
6	Emory	X	X	X
7	McAffee	X	X	X
9	Toney Valley	X	X	X
10	Peachtree	X	X	X
12	Medlock	X	-	-
14	West Peachtree	X	X	X
15	North Dekalb/South Dekalb	X	X	X
16	Noble	X	X	X
18	Decatur	X	X	X
21	Memorial	X	X	X
22	Second Ave.	X	X	X
24	Belvedere	X	X	X
25	North Shallowford	X	X	-
27	Monroe Drive	X	X	X
28	East Lake Meadows	X	X	X
30	LaVista	X	X	X
33 (4)	Howell Mill/Argonne*	X	X	-
36	North Decatur	X	X	-
40	North Springs-Decatur	X	X	X
41	Piedmont	X	X	-
43	Peachtree Dunwoody*	X	-	-
44	Skyland - Ashford	X	X	-
46	Boulevard - St. Charles	X	X	X
52	Glenridge Forest*	X	-	-
53	Mt. Vernon Woods*	X	-	-
59	Londonberry*	X	-	-
65	Northwoods - Oakcliff	X	X	X
65P	Doraville Park-Ride	X	-	-
66	Internal Revenue Service*	X	-	-
68	Armour Industrial*	X	-	-
70	Chamblee Doraville	X	X	-
74	Flat Shoals	X	X	X
75	Tucker	X	X	-
84	River Chase - Glen Errol*	X	-	-
86	Lithonia	X	X	-
95	Tilly Mill - Happy Hollow*	X	-	-
96	Snapfinger - Wesley Chapel	X	86	-

A DIVISION (Continued)

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
107	Glenwood	X	X	X
114	Columbia Woods	X	X	-
115	Covington Road	X	X	-
116	Redan Road	X	-	-
118	Rockbridge	X	-	-
120	Stone Mountain	X	X	X
121	Mountain Industrial	X	X	-
122	Dekalb College	X	X	-
125	Doraville - Avondale	X	X	-
CTH	Stone Mountain - Brookhaven	X	-	-
Total		52	36	23

B DIVISION

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
1 (2)	Marietta Street - Howell Mill - Coronet	X	X	X
2	Ponce de Leon	X	X	X
M4	Ridgewood - West Wesley	X	-	-
5	Sandy Springs	X	X	X
11 (2)	English Ave. - McDaniel St.	X	X	X
13	West Fair	X	X	X
23	Buckhead - Lenox - Oglethorpe	X	X	X
26	Perry Homes	X	X	11
28 (2)	Northwest Limited*	X	X	-
29	Roxboro	X	X	-
31 (2)	Grant Park - Piedmont - Morningside	X	X	X
32	Eastland	X	X	X
35	Ansley Park	X	X	X
37	Loring Heights	X	X	X
43	Garden Hills	X	X	X
45	Virginia - McLynn	X	X	X
50	Bankhead	X	X	X
51	Lake Forest*	X	-	-
51	Simpson	X	X	X
52	Knight Park	X	X	X
53	Grove Park	X	X	X
56	Adamsville	X	X	X
57	Collier Heights	X	X	X
58	Bolton	X	X	X
59	Maynard Courts	X	X	X
60	Hightower - Moores Mill	X	X	X
61	Bowen Homes	X	X	X
63	Atlanta University - Kennedy Center	X	X	X
64	Beecher	X	X	X

B DIVISION (Continued)

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
64	Sagamore Hills*	X	-	-
69	Dixie Hills	X	X	X
73	Fulton Industrial	X	X	X
77	Powers Ferry Estates*	X	-	-
77	Riverside - Brandon Mill*	X	-	-
81	Dalrymple - Glen Courtney*	X	-	-
85	Roswell - Alpharetta	X	X	X
85P	Abernathy Park/Ride	X	-	-
87	North Springs	X	-	-
91	Briarcliff - Henderson Mill	X	X	-
92	Perimeter Mall	X	X	85
94	N. E. Expressway Industrial*	X	-	-
98	West End - Arts Center	X	-	-
99	MLK/North Avenue	X	-	-
130	Winters Chapel	X	-	-
140	Holcombs Bridge	X	-	-
165	Kimberly - Country Squire	X	X	X
201	Six Flags Over Georgia	X	X	X
Total		51	37	34

C DIVISION

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
M2	Fairburn - Palmetto	X	X	X
4	Federal Prison	X	X	X
17 (2)	Decatur - Lakewood	X	X	X
20	Hapeville - College Park	X	X	X
24	Northland Limited*	X	-	-
34	Gresham	X	X	X
38	Paces Ferry*	X	-	-
42	Cooper - Village - Highpoint	X	X	X
48	Thomasville - Lenox Square	X	X	X
49	McDonough	X	X	-
50	Farmers Market*	X	-	-
54	Blair Village - Forest Park	X	X	95
55	Orchard Knob	X	X	X
60	Ridgemore*	X	-	-
62	Headland	X	X	-
66	Greenbriar	X	X	X
67	Westview	X	X	X
68	Donnelly	X	X	X
71	Cascade - Richland	X	X	X
72	Airport	X	X	X
79	Friendly	X	X	-
81	Oakland City	X	X	X
82	Greenbriar - East Point	X	X	-
83	Ben Hill	X	X	X
83	Springfield - Meadowlake*	X	-	-

C DIVISION CONTINUED

ROUTE NUMBERS AND NAMES		WEEKDAY	SATURDAY	SUNDAY
84	Mount Olive	X	X	X
88	Camp Creek	X	X	X
89	Brittany Kimberly	X	X	X
90	Jonesboro - Hutchens Rd.	X	X	X
93	Sylvan Hills	X	X	X
95	Stewart Hapeville	X	X	X
97	Atlanta Ave. - Georgia Ave.	X	X	X
100	Grady Express	X	-	-
160	Boulder Park	X	X	X
170	Brownlee - Ben Hill	X	X	X
190	South Fulton Parking Lot	X	-	-
Total		37	30	26

System Totals

Weekdays	140
Saturdays	103
Sundays	83

*Domestics

9/83

A/C

RECOMMENDED PREVENTIVE MAINTENANCE

7,000 MILE INSPECTION SHEET

BUS #_____ ODOMETER _____ DATE _____ INSPECTOR #_____

1. Clean Evaporator Filters ---
2. Clean Evaporator Coil ---

Use spray or warm soapy water, steam or both. Remove all dirt, grease and lint. Straighten any bent coil fins. Dip or spray filters (not coils) with odorless oil. Replace with thoroughly drained filters.

After Cleaning:
- Coil clean..... ☐
- Coil partially plugged.... ☐
- Filter clean..... ☐
- Filter partially plugged.. ☐

REASON: Dirty filters and coils cause compressor damage due to (a)low suction pressure, (b)loss of circulation to compressor and also cause substantial loss of capacity.

3. Evaporator Compartment ---

Visually check for oil or dirt accumulation on any surface indicating a refrigerant and oil leak. Correct leak and clean area.

- Oil found..... ☐
- No leaks..... ☐
- Leaks corrected..... ☐

REASON: Loss of oil, refrigerant, capacity and system damage.

4. Evaporator Compartment --- Doors, seals & latches -

Visually check for air tight compartment.

- OK..... ☐
- Seal leaking..... ☐
- Door bent..... ☐
- Latches inoperative..... ☐
- Corrected..... ☐

REASON: To assure proper air flow.

5. Clean Condenser filters and/or coil ---

Use spray of warm soapy water, steam or both. Remove all dirt, grease and lint. Straighten any bent coil fins.

After Cleaning:
- Coil clean..... ☐
- Coil partially plugged.... ☐
- Filter clean..... ☐
- Filter partially plugged.. ☐

REASON: Increase air flow and heat transfer to reduce condenser pressure and temperature. Prevents excessive temperature and pressure in compressor and hoses.

6. Grad-U-Stat ---

By using air wand - clean dust, dirt and foreign matter from bellows and/or bi-metal strip.

After Cleaning:
- Clean..... ☐
- Dirty..... ☐
- Damaged..... ☐
- Changed..... ☐

REASON: Properly adjusted Grad-U-Stat will result in specified heating/A/C cycle.

7. Engine Low Oil Pressure Switch -

Raising engine R.P.M. - check to see that A/C clutch will not ingage above 25 P.S.I. - engine oil pressure.

- Yes..... ☐
- No..... ☐
- Correction..... ☐

REASON: Prevent clutch engagement at high engine R.P.M.

CHECK AND ADJUST TRANSMISSION SHIFT CONTROL

(5-82)

8. **Pressure Test** - Install test gauges on compressor suction (S) and discharge (D) fittings Purge lines of air at gauges before tightening.

Gauge Reading:
Suction..... ___ ___ ___
Discharge..... ___ ___ ___

REASON: If positive pressure is not recorded, determine cause and correct. After correction, evacuate if air in system is suspected.
NOTE: Before further tests, start engine, engage air conditioning system and operate at engine idle speed of 500 engine R.P.M.

9. **Evaporator Blowers** --- Assure proper motor operation by checking for adequate air flow at both right hand and left hand air outlets.

Motor Operation:	LH	RH
High Speed.....	☐	☐
Low Speed.....	☐	☐
Stopped.....	☐	☐

REASON: Prevent compressor damage due to (a) low suction pressure, (b) loss of oil circulation to compressor, also, causes substantial loss of capacity.

10. **Condenser Fan** --- Assure proper motor operation by standing near condenser compartment to verify that adequate air flow through coil does exist.

Fan OK..... ☐
Fan Not Operating..... ☐
Correction ___ ___ ___ ___ ___ ___

REASON: Prevent major damage by warning mechanic to shut air conditioning system off. Shut off engine if necessary. Determine cause of no air flow and correct.
NOTE: Before additional checks (1) observe gauges to verify discharge pressure below 425 psi, (2) allow engine, compressor and coach interior to reach operating temperatures.

11. **Hose and Compressor Seal** --- Visually check for oil or dirt accumulation on any surface indicating a refrigerant and oil leak. Visible leaks (bubbling or oil accumulation) indicate worn out hose or seal. Replace defective part.

	Oil	Dry	Repl.
Suction hose..	☐	☐	☐
Discharge hose	☐	☐	☐
C/S Seal.....	☐	☐	☐

Corrected by Mechanic #____

REASON: Loss of refrigerant,oil,capacity and system damage.

12. **Refrigerant Level Record** --- Add to maintain one-half (½) sight-glass. Record original level (bottom) of glass, below glass, etc.) and date.

Position on Sight Glass	R-22	Oil
Above.....	☐	☐
Below.....	☐	☐
Center.....	☐	☐
7/8 Glass.....	☐	☐

REASON: Assure proper operating level. Repeated loss of refrigerant should be corrected.

13. **Oil Level** --- Add to maintain 7/8 sight-glass. DO NOT STOP COMPRESSOR. use recommended refrigerant oil only. Charge oil with hand hydraulic pump equipped with ball check at (1)oil charging valve or (2) oil pressure test fitting if no charging valve. Record amount added. Investigate cause of low oil.

Added___ ___ ___ ___ lbs. R-22
Added___ ___ ___ ___ ozs. ___ ___ ___
Type Oil
Leak Found..... Yes ☐ No ☐
Leak Corrected

NOTE: If compressor crankcase is not hot, repeat oil level check after reaching operating temperatures to assure level reading does not include liquid refrigerant.

(5/82)

14. Compressor mounting --- Tighten loose mounts, replace cracked or broken mounts and brackets. Check and lubricate drive line components, listen for pulsating rattles or noise. Replace worn parts. Do not overlook engine fan damper, etc.

	Tight	Loose	Repl.
Rubber.....	☐	☐	☐
Brackets...	☐	☐	☐
Driveline..	☐	☐	☐

REASON: Prevent excessive vibration, short hose life and repeated clut failures. Compressor seal and bearing life are also affected.

15. Engine idle --- Set to 500 R.P.M. with air conditioner operating and transmission in gear.

Tachometer Reading __ __ __
Corrected to 500 R.P.M. by Mechanic # __ __ __ __ __ __

REASON: To prevent low R.P.M. engine vibration from damaging drive component dampers, splines, "U" joints, clutch and compressor. To assu adequate oil pump capacity for compressor lubrication and unloader actuator operation.

16. Refrigerant Pressures Record - At 500 engine R.P.M., record suction pressure and discharge pressure. Repeat at 1800 R.P.M. Compare readings to previous records on same coach and other coaches. Determine cause of significant differences based on ambient temperatures.

Pressure	500 rpm	1800 rpm
Suction	__ __ __	__ __ __
Discharge	__ __ __	__ __ __

REASON: To diagnose a system malfunction. Any system defect can be observed through its affect on suction and discharge pressure.

17. Dehydrator Strainer --- Determine that no temperature difference exists across filter-drier. Replace if temperature drop is noted.

OK	Replaced
—	—

REASON: Compressor damage due to (a) low suction pressure, (b) loss of oi circulation to compressor. Also, cause substantial loss of capacity.

18. Unloader Mechanism-Test --- Remove discharge test gauge - attach to #1 cylinder unloader test fitting. Record data in chart. Repeat test for #4 cylinder unloader.

Unloader Operation
OK..... ☐
Adjusted..... ☐
Insufficient Oil Pressure ☐

Unloader Test*	Engine RPM	Suction PSI	Unloader PSI	
Operate Air Conditioning at idle.....	500	__ __ __ __ S	#1 __ __ S+O	#4 __ __ S+O
Raise RPM to reduce suction to 52 PSI.....	__ __ __	__ __ __ __ S	#1 __ __ S	#4 __ __ S
Lower RPM to raise suction to 56 PSI.....	__ __ __	__ __ __ __ S	#1 __ __ S+O	#4 __ __ S+O

S-Suction Pressure
O-Oil Pressure

*NOTE: Coach interior must be 70-75° minimum for accurate test. If incorrect, adjust #1 to unload (drop oil pressure reading) at 54 PSI using adjustment in bottom of crankcase.

REASON: Excessive compressor damage will result due to low oil pressures and high operating temperatures. Clutch and drive train life can be reduced by cylinders loading and unloading at too high RPM.

(3/82)

19. Oil Pump Safety Switch (Low pressure side of Hi-Low switch)

Remove unloader test gauge and attach to oil pressure test fitting.

Switch Position	Oil Pump Pressure
Open.....	___ ___ ___
Close.....	___ ___ ___

With Pump-down feature-At engine idle, turn air conditioning switch off.
Without Pump-down-At engine idle, close receiver outlet or dehydrator service valve to drop suction pressure.
Record gauge pressure (oil and suction) at time oil pressure switch opens. If switch does not open at 65 PSI, stop engine and correct problem.

Adjusted to open 65 PSI-close 85 PSI by Mechanic #_____

REASON: To shut off air conditioning compressor any time a loss of oil pressure or suction pressure occurs.

20. High-Low Safety Pressure Switch (High Side)

Check discharge pressure cutout by restricting condenser air intake with cardboard to raise pressure. Remove restriction immediately if pressure exceeds 425 PSI. Correct switch & repeat if necessary.

OK .....
Adjusted.....
Corrected.....

Open Discharge Pressure.....
375-425 (all coaches)

Close Discharge Pressure.....
50 PSI below open

REASON: To prevent serious damage to the compressor and system components.

21. Belts (Condenser Fan Alternator or Pump)

Check belt tension and condition of belts. Adjust improperly tensioned belts and replace worn or frayed belts.

Belts missing.....
Belts frayed.....
Belts loose.....
Belts OK.....
Tension _____ lbs.
@_____in. Defl.

REASON: Worn, loose or frayed belts can contribute to excessive pulley temperatures, resulting in overheated bearings and alternator failure. Tight belts cause early bearing failures.

22. Oil Pressure ---

With compressor warm or after idling a minimum of 5 minutes, operate at 1700-1800 engine RPM for 10 minutes. Reduce RPM to idle 500 RPM and operate 2 minutes before recording gauge readings.

Oil pressure test fitting.....___ ___ ___
Suction pressure test fitting.....___ ___ ___
Net oil pressure.___ ___ ___

REASON: To determine minimum oil pressure under most severe operating conditions. Failure to maintain minimum of 30 PSI net oil pressure indicates compressor should be rebuilt to avoid accelerating wear (unloader mechanism on #1 and #4 cylinders require 30 PSI for operation. Failure to operate properly will cause severe system imbalance).

(5/82)

23. Clutch adjustment check using 65-120 PSI shop air supply with coach engine off.
    (1) Replace coach air supply to cylinder with shop air.
    (2) Remove clutch arm clevis pin (air pressure applied).
    (3) By hand, move clutch arm away from cylinder until all clearance is removed. Adjust cylinder rod clevis to obtain 7/64" clearance on center lines of clevis pin holes.
    (4) Replace pin-exhaust air and measure cylinder rod travel. Maintain 1 1/8" travel. Incorrect travel requires rebuild of clutch assembly.
    (5) Remove air supply-check flywheel to clutch disc clearance. Maintain minimum clearance of .010".

	OK	Corrected
	☐	☐
	☐	☐

24. Electric Clutch -- Inspect wiring, excessive noise and vibration.

OK..... ☐
Noise..... ☐
Vibration..... ☐
Correction..... ☐

25. Condenser Fan R.P.M. Record
Hydraulic @ Idle _____ 1450 + 1500
Electric -
2000 Engine R.P.M._____ 1800 + 100
Voltage _____
Ampere Draw_____

REASON: If fan speed is not exactly as shown, determine cause and correct. Check alternator, pump, ampere, volts, regulator, brushes, bearings, etc. See applicable maintenance manual. Excessive motor speeds (electric) affects service life of alternator & motor.

26. Check compressor alignment and drive line components. Replace compressor and/or engine mounts if necessary prior to alignment.

	Tight	Loose
"U" Joints.....	☐	☐
Splines-Clutch Disc.	☐	☐
Yoke.....	☐	☐

Engine accessory drive noise level @ idle without propshaft..._____
Quiet, Pulsating rattle, etc.

REASON: Prevent excessive vibration, short hose life and repeating clutch failures. Compressor seal and bearing life are also affected.

27. Check: Super Heat --- Clean remote bulb, use electric remote thermometer and suction guage to check super heat._____ 10° - 15°

OK..... ☐
Low..... ☐
High..... ☐
Adjusted..... ☐

REASON: To control amount of rise in temperature above saturation poin and prevent liquid damage to compressor.

28. Compressor Oil Sample --- Remove sample of oil in clean, clear container and allow time for refrigerant to separate from oil. Oil and dehydrator filter should be changed if color is dark brown or black indicating chemical breakdown of oil. Compressor and dehydrator filter should be changed if oil sample is gray, indicating progressive bearing failure.

COMMENTS:_____
_____
_____

Oil Color		
Amber.....	☐	OK
Dk. Brown.....	☐	☐
Black.....	☐	
Gray.....	☐	
Foreign particles.....	☐	
Correction	**Yes**	**No**
Replaced dehydrator.....	☐	☐
Replaced oil....	☐	☐
Evacuated system.....	☐	☐
Replaced compressor.....	☐	☐

55-0818 (rev. 5/82)

DATE _____ BUS NO. _____

BODY - INTERIOR - EXTERIOR

1. Floor, steps, and covering
2. Wash engine
3. Wash battery. Check specific gravity_____ Water added_____
   Tighten connections.

   Battery numbers _____ _____
4. Air tires - check condition. Check valve caps RF__LF__RRO__RRI__LRO__LRI__Aux. __ __
5. Tighten axle studs - check wheel studs
6. Check all lights - replace burned out bulbs. Check headlight adjustment
7. Operator's seat, adjustment and oil pedestal.
8. Horn operation - button - brush.
9. Inside and outside mirrors.
10. Operator's dash and instruments, switches, guages and tell tale lights.
11. Brake and accelerator pedals - lubricate - return spring at front.
12. Transfer cutter, money tray, punchers.
13. Windshield wipers, and control valves, fill washer.
14. Direct light switches and headlight foot switch.
15. Speakers and microphone - radio operation.
16. Destination sign - block number.
17. Heater pump - motors and controls.
18. Inside decals - replace if necessary.
19. Seats, stanchions.
20. Loose screws - inside trim - tighten or replace.
21. Windows, sash, latches, stops, guides. Windshield glass.
22. Signal bell cords and guides.
23. Check doors, rods, levers, gears, wires, operation.
24. Tighten starter terminal nuts - check wire mounting straps.
25. Check outside body damage - State inspection sticker - exact fare signs - rear compartment doors and locks - advertising sign frames.
26. Check fuel cap and gasket.
27. Check transmission and radiator grill doors and latches.
28. Check air leaks.
29. Paint wheels.

CHECK [illegible] SCREWS IN [illegible]

Mechanic's Signature _____ Date _____

ENGINE COMPARTMENT

1. Change oil filters ☐
2. Change fuel and torque filters - Primary ☐ Secondary ☐ Torque ☐
3. Fill with oil
4. Fill with torque fluid
5. Change shift governor ☐
6. Change air governor ☐
7. Change alarmstat ☐
8. Change shutterstat ☐
9. Check for oil leaks

CHECK AND ADJUST
TRANSMISSION
SHIFT CONTROL

10. Clean engine air filters - Air intake restriction _____"Water (Manometer)
11. Check generator field current _____Amps
12. Check muffler and exhaust system
13. Check air pressure, 50# to 90# _____seconds
14. Check air pressure drop
15. Check brake air pressure drop (Gauge_____, Brake cylinder _____)
16. Check low air buzzer
17. Check oil pressure idling and top speed, Idle-RPM_____Top-RPM_____
18. Check convertor main pressure idling and top speed, Idle_____Top_____
19. Check turbine outlet pressure idling speed_____
20. Check fuel pressure idling and top speed, Idle-RPM_____Top-RPM_____
21. Tighten water hose
22. Check radiator, fan and hub, shutters, and shutter motor. Add Kysor fluid.
23. Grease accelerator bell crank on governor housing. Check spring.
24. Check micro switch soft shift VS transmission
25. Check Jacobs Engine Brake operation
26. Oil accelerator cable in rear compartment
27. Check engine mountings
28. Oil hi-idle cylinder
29. Oil engine stop solenoid and cylinder
30. Check emergency stop solenoid operation
31. Oil bell crank bushing on top of governor
32. Set fast idle
33. Check anti-freeze, water, radiator, low coolant indicator circuit, protection_____°F
34. Check wiring in rear compartment
35. Check for air leaks
36. Check decals in rear compartment
37. Air-Condition: 1. Operate A/C for ten (10) minutes at each inspection
    2. Check alternator output voltage, 37± 3_____volts
    3. Check A/C alternator belts and tension

_____ _____
Mechanic's Signature Date

CHASSIS/STEERING/DRIVE LINE/LUBRICATION

1. Adjust service and emergency brakes - check steering gear and Pitman arm
*2. Drain oil - take sample. Change oil filter ☐
3. Change differential grease ☐
4. Drain converter fluid ☐
5. Drive shaft and universal joint
6. Muffler and exhaust system
7. Lubricate steering, king pins, tie rods, drag links, drive shaft
8. Check and lubricate emergency brake cam shaft and linkage, accelerator pedal pins, brake cam shafts, anchor pins - slack adjusters
9. Check tie rods, drag link ends, king pins
10. Check interlock rods and cylinders
11. Oil accelerator and emergency brake cables
12. Tighten water hose
13. Check frame - gussets and structural members
14. Check fuel tank for leaks
15. Change heat blower filters. Check blower compartment doors and seals
16. Check bellows for leaks & ride height _____inches_____inches
Front Rear
17. Drain air tanks
18. Check air dryer operation
19. Check for air leaks
20. Check brake - air reservoir differential, Tank_____Brake pressure_____
Differential_____
21. Check and set toe in
22. Air-Condition: 1. Check compressor mounting bolts and brackets
2. Check and lubricate drive shaft "U" joints. (Over lubrication at front fitting will damage clutch).

*Check sample oil viscosity _____% fuel dilution
Maximum allowable 5%

_____ _____
Mechanic's Signature Date

_____ _____
Foreman's Signature Date

55-0188 (rev. 5/82)

DYNAMOMETER TEST AND TUNE-UP 50,000 Miles

Date_____ Speedometer Reading_____ Mileage Due_____ Bus No._____

MILES PER HR.	LAST INSPECTION			PRESENT INSPECTION		
	HORSE POWER	CONVERTER UPSHIFT	CONVERTER DOWNSHIFT	HORSE POWER	CONVERTER UPSHIFT	CONVERTER DOWNSHIFT

Present Mile Per Gal._____ Oil Pressure_____ Engine Temperature_____

TRANSMISSION PRESSURE TEST

R.P.M.	MAIN	HYDRAULIC	DIRECT	CONVERTER IN	CONVERTER OUT	MAIN WHEN SHIFTING	ACCUMULATOR VALVE TIME DELAY
IDLE 450							
1500							
2000							

CONDITION OF FLUID:

STALL (RPM) ☐

ENGINE TUNE UP — CHANGE INJECTORS ☐		ADJ.	O. K.	REMARKS
1	TUNE ENGINE—Follow Tune-up Procedure in GMC Diesel Engine Manual			
2	CHECK ACCELERATOR LINKAGE & ADJUSTMENT			
3	CHECK FUEL SYSTEM AND FUEL PUMP PRESSURE			
4	CHECK EMERGENCY STOP SOLENOID			
5	CHECK AND SET FAST IDLE			
6	CHECK ENGINE MOUNTINGS			
7	CHECK AIR COMPRESSOR GOVERNOR OPERATING RANGE			
8	CHECK ENGINE AIR INTAKE SYSTEM			
9	CHECK RADIATOR—WATER HOSE—FAN—SHUTTERS & SHUTTER MOTOR			
10	CHECK BATTERY CONDITION & VOLTAGE REGULATOR SETTING			
11	CHECK WIRING AND TELL TALE ALARM SYSTEM			
12	CHECK LOW COOLANT PROBE & CIRCUIT REMOVE & CLEAN FILTER			
13	CHECK SOFT SHIFT CONTROLS SHIFT GOVERNOR			
14	IDLER GEAR ☐ PISTON BUSHING ☐			
15				

Inspector_____ Date Inspected_____ Air Box Pressure ☐

0570 (6/76) LIST ADDITIONAL REMARKS OR DEFECTS ON REVERSE SIDE

REPORT NO. 620400-372 METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY AS OF: 12/15/83
PAGE NO. 842 MAINTENANCE RECORDS FOR 11/01/83 THRU 11/30/83 DATE PRINTED: 12/15/83

MILEAGE AT END OF OCTOBER : 450,591 GARAGE: BRADY AVE.

DATE	P #	QUARTS OIL	QUARTS WATER	GALLONS FUEL	CURRENT MILEAGE	MILEAGE INTERVAL/ WORK TO BE DONE	INSPECTION DUE (MILES)	INSPECTION COMPLETED (MILES)	DATE	DUE AGAIN (MILES)
1	1	0	0	31.4	450,698.15	7,000	452,500.00	453,700.00	11/17/83	460,700.00
2	1	1	0	58.8	450,898.13	7,000 MILE BUS INSPECTION				
3	1	0	0	58.7	451,097.77					
4	3	0	0	50.0	451,267.82	14,000	451,500.00			
7	1	0	2	79.3	451,537.52	SEC FILTRS				
8	3	0	0	36.9	451,663.02					
9	2	0	0	53.2	451,843.95	28,000	456,800.00	453,700.00	11/17/83	481,700.00
10	2	2	0	40.7	451,982.37	CONV FLTRS				
11	2	2	0	48.8	452,148.34					
12	3	0	0	69.9	452,386.07	28,000	456,800.00	453,700.00	11/17/83	481,700.00
13	2	0	0	63.4	452,601.69	ALARMSTATS				
14	3	3	0	61.8	452,811.87					
15	2	0	0	61.7	453,021.71	28,000	456,800.00	453,700.00	11/17/83	481,700.00
16	3	0	0	83.7	453,306.37	DIFF GREAS				
17	3	0	0	31.0	453,411.80					
18	1	0	0	31.2	453,517.91	7,000	454,700.00	453,800.00	11/18/83	460,800.00
19	1	0	0	75.5	453,774.68	7,000 MILE AIR COND. INSP.				
20	2	0	2	12.1	453,815.83					
21	3	0	0	58.1	454,013.43	1,000	456,400.00			
22	2	0	2	66.0	454,237.89	EXT WASH				
23	3	0	0	51.2	454,412.02					
25	2	0	0	41.5	454,553.16	2,000	457,400.00			
28	2	0	0	54.5	454,738.51	INT WASH				
29	2	0	0	62.3	454,950.39					
30	3	3	0	60.5	455,156.15	50,000	472,000.00			
						50,000 DYNO & TUNE-UP				
						100,000	521,900.00			
						INJECTORS				
						125,000	546,900.00			
						STARTER				
						200,000	511,500.00			
						AIR COMPSR				
TOTALS:		11	6	1,342.2	4,564.79					

MILES/QT.OIL = 414

FISCAL YEAR-TO-DATE MILEAGE: 21,175.46 FISCAL YEAR-TO-DATE FUEL: 6,678.5

BUS NUMBER: 04007

BUS INTERIOR GLASS CLEANER

Wash all interior glass; including windshield, mirrors, gauges and doors.
Dust dash, farebox, destination signs, doors and back of rear seat.
Clean front and center door glass.
Clean dash from floor upward.

Check Each Number As Completed.

BUS NUMBER		BUS NUMBER	

Date Completed _____ 19 __

Signed _____

Checked and Approved By _____ Foreman

55-0562 (5/81)

NO. _____

DATE _____

MILEAGE DUE _____

SPECIAL INTERIOR CLEANING

1. Empty trash box, remove all old transfers paper.
2. Using scraper, loosen all mud from floor and step wells.
3. Wash ceiling, remove all stain or dirt from around lights, stanchions, brackets, moulding, etc.
4. Sweep floor and stepwells.
5. Wash all side panels and instrument panels, remove all stain or dirt.
6. Clean all interior glass; remove all smudges or streaks.
7. Wash all seat backs being careful not to streak.
8. Clean all seat upholstery using a damp cloth. (Take necessary steps to remove chewing gum and other hard-to-remove matter).
9. Scrub floor and Stepwell thoroughly. (Do not use running water in bus above seats, on radio equipment, dash or control switches).
10. Mop floor and stepwells, removing all excess water.
11. Wash Exterior of windshield; remove all smudges and streaks.
12. Wash bus Exterior.
13. Clean underneath rear setee.

Date Completed_____19____

Signed _____

Checked and
Approved By _____
Foreman

-0195 (rev. 2/83)

RADIO SIGNAL CODE

10 - 1 SIGNAL WEAK
10 - 2 SIGNAL GOOD

10 - 3 ASSAULT ON OPERATOR
10 - 4 AFFIRMATIVE (OK)
10 - 5 WAIT FOR SUPERVISOR OR SHOP TRUCK
10 - 6 CLEAN UP OR SWAP OFF

10 - 7 OUT OF SERVICE
10 - 8 IN SERVICE
10 - 9 SAY AGAIN (REPEAT MESSAGE)
10 - 10 NEGATIVE

10 - 11 ACCIDENT BUS INVOLVED
10 - 12 AMBULANCE NEEDED
10 - 13 HOLD UP

10 - 14 PASSENGER INJURED
10 - 15 PASSENGER SICK
10 - 16 PASSENGER SMOKING: HAS BEEN ASKED TO STOP, BUT REFUSED.
10 - 17 PASSENGER ARMED
10 - 18 PASSENGER DISORDERLY (DAMAGE TO BUS)

10 - 19 DISTRUBANCE ON BUS
10 - 20 LOCATION
10 - 21 STREET BLOCKED BY ACCIDENT, CONSTRUCTION. TRAIN
10 - 22 TRAFFIC LIGHT MALFUNCTION (LOCATION)
10 - 23 BUS WITH MECHANICAL TROUBLE (STATE TROUBLE AND TIME IN CITY)
10 - 24 BREAKS, SLACK OR PULLING
10 - 25 DISABLED BUS (CAUSE)

TUESDAY

A new study reveals some surprising findings about the fatal flaws of top managers.

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BY HENRY WEIL

Two high-level managers are being considered for promotion to a top position at a large corporation. Each has performed well over a twenty-five-year career in a variety of capacities—although each has made notable mistakes. Candidate A is a hard-nosed, demanding taskmaster who doesn't care whose feathers are ruffled as long as the job gets done and who can always find the guilty culprit when the work falls behind schedule. Candidate B puts in long hours and expects subordinates to do so, too, but seldom demands extra effort explicitly. Candidate B also brings in results but usually accepts the blame personally if there's a delay.

When subordinates have personal problems, Candidate A will explain that it's too bad, but personal difficulties should never interfere with work. Candidate B will be instantly sympathetic and will make allowances. Moreover, Candidate B will listen to experts who know more about a specialized area of business and will usually accept their counsel. Candidate A is so confident and has been so successful making hip-shot decisions that anyone else's advice is usually ignored.

Candidate B gets the job. True or false?

The answer, according to a recent study of corporate life, is true. Behavioral scientists at the Center for Creative Leadership in Greensboro, North Carolina, discovered that, contrary to popular wisdom, nice guys don't necessarily finish last.

A nonprofit organization founded in 1969, the Center for Creative Leadership seeks to identify and teach the elements of effective leadership in government, industry, and universities. Among its many projects is a sweeping study of executive learning, growth, and development, sponsored by ARMCO Steel, Merrill Lynch, Sun Company, Union Carbide, and Westinghouse Electric. One part of this study sought to answer the question "Why do the careers of successful executives suddenly come to a halt?" The center's answers were provided by a research team headed by Morgan W. McCall Jr. (PhD in organizational behavior from Cornell), Michael M. Lombardo (EdD from the University of North Carolina at Greensboro), and Ann M. Morrison (MA in psychology from Bucknell and MBA from Wake Forest).

The center's team had hoped to identify the pivotal factors leading to success but found instead that the factors interfering with it were more clear-cut. The researchers were allowed to comb the top executive offices at several Fortune 100 companies looking for both on-track careers and those that had derailed. They interviewed executives, the executives' associates, and senior human resource personnel. Some interviewees were asked to detail the careers of both successful and failed executives they had known. Others—successes—were asked to describe their own careers. Says Lombardo, "Every question we asked got a story. We were frankly amazed. One guy said, 'At last, somebody finally asked me about what's important to me.' " Adds Ann Morrison: "I was surprised at the candor with which they admitted their mistakes." The executives, in short, unburdened themselves to the researchers as if to their therapists.

The executives' average age was forty-seven, and because of the promotion patterns at the cooperating companies, most of the 105 subjects of the study were men. (The researchers insist that their findings are equally valid for women—with one important difference, as will be discussed later.) The executives—successes and failures—all shared certain traits. The researchers identified seven and noted that while no executive had them all, each had at least two: 1) they had built impressive track records that usually began while they were still young; 2) they were well-liked; 3) they had brilliant technical minds; 4) they were loyal to their colleagues and their companies, and they were self-sacrificing; 5) they were ambitious and adroit manipulators of their own careers; 6) they received an important promotion during a major reorganization or merger; 7) their subordinates performed enthusiastically and skillfully under their supervision.

But all of the rising executives—every one—had also suffered from serious setbacks in their careers and major flaws in their performances. Two-thirds had fumbled assignments at one time or another, or had missed promotions, had been assigned to dead-end jobs, had fought with a boss and lost, had been demoted or fired, or had found themselves over their heads in a new job assignment. One executive said to the researchers, "Here are the three most common mistakes managers make, and I ought to know. I've made them all."

Another executive, who early on found himself in a dead-end job, quit and walked down to the personnel office. He reapplied for a job with the same corporation, requesting a different division, and went on to be a success. Another rising star saw his career plateau unexpectedly. He had been considered a genius who could do anything. But when he was promoted into a job that bombarded him with more details than he could keep track of, no one stepped forward to help. His subordinates, his peers, and his bosses all thought he was so brilliant that he would eventually master the job on his own. But, in fact, he couldn't, and when he didn't get help, the genius was soon dismissed as a failure.

Every executive—on-track or derailed—found his weaknesses exposed when faced with one of five events. First, those whose careers had depended on a mentor—someone who

Henry Weil has contributed articles to Barron's, Money, *and* Science Digest.

taught them how to perform properly and who covered for their mistakes—were exposed when the mentor retired or changed jobs, or when the fair-haired subordinates were promoted away from the mentor's protection. To the researchers' surprise, mentors sometimes turned out to do as much harm as good in an executive's career. If the mentor tried to cover up a subordinate's flaws, sooner or later his shortcomings surfaced anyway. Conversely, even when the subordinate was truly talented, he was often perceived as overly dependent on his mentor and denied promotion as a result. Few successful executives interviewed by the center's team reported being helped much by a mentor. Many more interviewees claimed instead that they learned far more from bad examples, from others whose mistakes the successes observed and vowed never to repeat. Says Mike Lombardo, "People don't learn much from smooth sailing."

Second, a rising executive's limitations sometimes appeared when he was handed a job assignment for which he was not prepared—often under a boss whose style was different from that of managers he had worked for previously. Third, a departmental reorganization kicked many employees upstairs into jobs for which they weren't ready or even—fourth—into executive suites where their styles and talents clashed with the new top-level colleagues. And finally, the executive could have been such a snarling, bullying, back-stabbing SOB that the enemies he made during his rise to the top finally complained enough to get him fired.

According to the center's study, the flaws that rising executives reveal on their way up are the same for those whose careers stay on track as for those who derail. The difference lies in the way these shortcomings are handled. Every successful executive displays at least one managerial weakness but usually knows it and is able to compensate for it. Those who derail usually have at least two fatal flaws, and sometimes more.

Weaknesses that can be fatal when combined can be categorized as managerial, personal, and in-between. For instance, managers can fail to meet profit goals; they can get lazy; or they can simply be out of their depth when transferred from, say, marketing to manufacturing, or from day-to-day routine to long-range planning. If they don't learn ways to improve their performances, their careers will falter.

Fatal flaws, however, are more often liabilities of personality. Executives sometimes overmanage because they can't let go and give subordinates the responsibility they need, or because they don't trust the judgment of those who are out in the field and know better. When a problem arises, some managers are quick to be defensive, refusing to admit their part in the problem, and they try to lay the blame on others. They are so blatantly worried about their own careers that they thrash and flail trying to stay on track.

Sometimes managers simply don't relate well to other people. They manage by being abusive and sarcastic. They seem aloof or arrogant. Or they are simply unpredictable, exploding unexpectedly or taking action without warning colleagues of the consequences. But of all possible flaws, the report concluded, "the most frequent cause of derailment is insensitivity to others"—whether through callousness, self-absorption, or sheer ineptitude.

The report also points out that a manager's flaws can sometimes be an asset. Executives who overmanage, who cannot delegate, sometimes prove effective at turning around lackluster divisions that desperately need someone meddling everywhere. Managers who are natural bullies can occasionally get lazy workers to shape up. But these tendencies succeed only in certain circumstances. As high-level managers overseeing many divisions, the meddlers and the bullies will usually break too much china.

No managerial or personal flaw will stop a career if the executive recognizes it and sets about correcting it. Says Mike Lombardo, "We interviewed one successful executive, a brilliant engineer who, when he was young, had been told he was being transferred off a project. He said, 'Wait a minute. I need three more months to finish it.' His boss said, 'You don't understand. Everybody finds you a pain in the butt. No one wants to work with you.' The guy couldn't deal with people, who seemed to him, as an engineer, to be improperly working machines. Well, it was a deeply traumatic experience for him—most successful executives face at least one similar adversity in their careers—and he decided he'd better change. It took him a couple of years. No one knows how he did it, but he finally learned to appreciate people *because* of their shortcomings. Ultimately, he went on to become very successful."

In general, the report says, executives who didn't derail had performed well in two or more *different* kinds of challenges during their careers: "They had turned a business around and successfully moved from line to staff and back, or they had started a new business from scratch and completed a special assignment with distinction. They built plants in the wilderness and the Amazon jungle, salvaged disastrous operations, resolved all-out wars between factions without bloodshed—one even built a town."

Ann Morrison notes that many successes went out of their way to broaden their range of experiences. Some proposed assignments for themselves to enlarge the scope of their jobs. Others did volunteer work in the community. And still others sought and received appointments to problem-solving task forces within their companies.

In addition to demonstrating versatility, the successful executives exhibited strong interpersonal skills. They were calm and confident when the going got rough, willing to accept responsibility at all times, and seldom moody or volatile. This proved especially difficult whenever they were transferred from a division where they had demonstrated their competence to another division where they had to prove themselves all over again.

Then, whenever they loused up, the successful executives admitted it and accepted the consequences. They warned colleagues to be prepared for the problems they had created in order to minimize the damage. They never tried to blame others, nor did they brood about their mistakes. One successful executive told the researchers, "You can't get too concerned about losing millions. After all, money is lost every day."

The successful executives also owned up when they were out of their depth. Says Lombardo, "One guy was put in charge of computers even though he knew nothing about them. So he called the staff together and said, 'First, I know nothing about computers. Second, I know market-

The most frequent cause of derailment is insensitivity to others.

ing—and I will do anything to help you make your systems relevant to marketing. And third, I'm here to ask stupid questions.' Well, the staff loved him."

When problems arise, says the report, successful executives concentrate on solving them—no matter who's at fault—without worrying about possible consequences to their own careers. In fact, says Randall P. White, who assisted in the center's research, many successes seem never to have set high goals for themselves. They were simply carried along by their own accomplishments. "We asked them, 'When did you first know you were a success?' " says White, "and some answered, 'I don't know that now. Am I?' "

And finally, successful executives seem able to get along with a wide variety of people, even those with whom they disagree. After all, Mike Lombardo points out, a top-level executive must manage older employees, former bosses, and people he finds boring and distasteful, and that requires patience, finesse, and tact. Says the report, "One arriver disagreed strongly with a business strategy favored by his boss. He presented his objections candidly and gave the reasons for his concerns and the alternatives he preferred. But when the decision went against him, he put his energy into making the decision work. When his boss turned out to be wrong, the arriver didn't gloat about it—he let the situation speak for itself without further embarrassment to his boss."

In short, the center's team found that there are no quick fixes to ensure a successful corporate career. A mentor's guidance may help, but it can also backfire. Executives who plan their careers seem not to have an edge over those who don't. And being brutal and hard-driving seems to be a serious miscalculation. "The most common reason we found for derailment among fast-tracking managers," insists the report, "was that although they were brilliant, they were too tough and insensitive to others." Being a mean thus-and-so was never the only reason for derailment; but when an executive combines such an approach with other weaknesses, he can find himself stymied, demoted, and possibly even fired.

Many people who have read the center's report immediately respond: If this is true, why is my boss such a loathsome slug? The center's researchers readily admit that corporate cultures differ, that there may well be firms that reward viciousness and the ability to humiliate—the center, after all, had access to the top executives at only a few corporations. Moreover, there are many entrepreneurs and superachievers who made their businesses successful in the face of an indifferent or resistant marketplace. These hustlers have learned to be persistent, obsessive, even obnoxious—and in the end those qualities paid off. Having been handsomely rewarded for unpleasant behavior, they're not about to change. They may even argue that theirs is the only way to succeed. Says Helen Galland, president of Helen Galland Associates, a marketing consulting firm, and former president of Bonwit Teller, "There are people who aren't so adorable but who know their business so well that they can compensate for their liabilities."

In general, Galland finds the center's conclusions to be accurate, and she agrees that the ability to get along with people is usually a prime virtue for an executive. "No business," she explains, "can survive on the expertise of only one individual. It always needs a support team. And a top executive will need to get along with the members of that team." Says Suzanne de Passe, president of Motown Productions, "I don't know of a successful manager who doesn't have successful people with him. And when you have good relationships with subordinates, it creates a power that pushes you up."

One top executive agrees with the findings, but interprets them from a jaundiced point of view. It's not that affable types are necessarily more effective managers, says Lois Wyse, president of Wyse Advertising and author of *The Six-Figure Woman*, it's simply that "people who inspire strong emotions have a harder time getting promoted. The top jobs go to blander personalities. We tend to promote Cheez Whiz and not pizza."

There is, of course, that nagging question that the center's report never answered: Are the findings equally true for women? Says Ann Morrison, "I suspect that women's careers are more complicated, but my feeling is that 90 percent of what we've learned will also apply to women." Mike Lombardo adds that he and his colleagues spoke to many women who weren't included in the study, and the findings seem to hold true for women executives—with one significant addition. "At each new level," he says, "a woman must gain credibility all over again, something a man seldom has to do. We spoke to one woman, a petroleum engineer who had been assigned to Wyoming in the dead of winter. She told us that after one day working alongside men at 20 degrees below zero, she didn't have to prove herself any further. But she did have to get through that first day just the same."

Jackie DaCosta recognizes the same problem. "It's a continuous process of gaining approval," she says. "Even though you've developed a positive reputation, you have to keep proving yourself." Adds Lois Wyse, "It's tougher for women, because as women we get emotional responses at so many levels, whether it's a man doing the promoting or a woman. Women won't have equality until they have the freedom to fail."

On the whole, however, women executives agree that the qualities a woman needs to get to the top are identical to those a man needs. Says Linda Wachner, president of Max Factor, "The people who rise to the top are consistent and intellectually honest and have good people skills." Adds Helen Galland, "When people get to the upper rungs of the executive ladder, it doesn't matter at all whether they're men or women. The skills and talents they need to succeed are the same." =

Female Bosses Say Biggest Barriers Are Insecurity and 'Being a Woman'

By Jennifer Bingham Hull
Staff Reporter of The Wall Street Journal

They are senior executives at large U.S. companies with average salaries of about $92,000. Their titles range from corporate secretary to president and chief executive officer, and while most are single, those who are married say they are both the main breadwinner and the main homemaker.

They attribute their successes to ambition, drive and a willingness to take risks, and they blame their failures on a male world and their lack of confidence in it. They were more often the first-born or only child in their families and favored their fathers.

This is part of a picture that emerges from a study of executive women recently completed by Korn/Ferry International, an executive search firm, and the University of California, Los Angeles, Graduate School of Management. The study is based on 300 responses to 600 questionnaires mailed to women at the level of vice president and above at Fortune magazine's lists of the top 1,000 industrial concerns and 300 of the largest companies in specialized areas. Most of the respondents are vice presidents. Their average age is 46.

While the study makes it clear that women are on the way up, it also shows that it has been a bit lonely being among the few women at the top.

Work-Place Problems

Asked whether "barriers to women have fallen at the senior management level," 63% of the women say no. And 70% say women don't receive equal pay for comparable jobs. Female executives most frequently mention "being a woman" as their major career obstacle, citing "the old-boy network," "insecure men," and the attitude that they're "too good looking to take seriously . . . will run off and get married" as work-place problems.

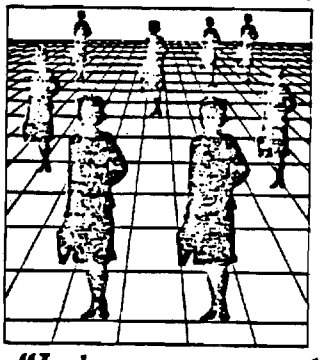
In comments on her questionnaire, a vice president of corporate finance says her biggest career obstacle has been her appearance. I "didn't look or sound the part—5' 3½, female, with a Southern accent," she says. A vice president and director of manpower development complains of "lack of acceptance based on competence . . . the unwillingness of people to give me the toughest assignments." And a regional vice president says her biggest barrier to success has been her "tendency to unconsciously intimidate male superiors."

After "being a woman," lack of confidence was most frequently cited as the main obstacle to success. A senior vice president of marketing says she was forced to overcome "my own fears of not being as good or strong as the men I worked with because of lack of education and being the first woman." Asked to name her greatest career challenge, another woman simply responded, "myself."

These comments sound familiar to Barbara Franklin, a senior fellow of public management of the University of Pennsylvania's Wharton School. She serves on the boards of Dow Chemical Co., Westinghouse Electric Corp. and Aetna Life & Casualty Co. Miss Franklin cites isolation and upbringing as reasons for insecurity. "Women aren't brought up with male egos. And . . . in the corporate scene nobody tells you when you've done a good job. There's just this deafening silence."

Lack of confidence, Miss Franklin says, comes from corporate women's inability to break into men's informal networks. "I see it now. Everybody I know plays golf. I don't play golf."

The study by Korn/Ferry and UCLA follows a similar survey done in 1979. Then, the researchers set out to analyze the characteristics of senior executives, surveying about 1,700 people in senior positions below the level of chief executive officer at Fortune's top 500 companies and the 300 more specialized concerns. When 99% of the respondents turned out to be men, the researchers decided to survey executive women and compare the two groups. Presidents, chief executive officers and chief operating officers were included in the female study in order to get a sufficient sample. The average age of the men surveyed was 53.



"I know men who say, 'I support your career. It's wonderful.' But that's not what they mean," says a woman who is a director of several companies.

Comparison shows the biggest difference between executive men and women to be marital and family status. Fifty-two percent of the women surveyed are single, compared with only 4% of the men. In addition, 61% of the women are childless, while 97% of the men were parents.

Executive women are far more likely to be divorced than their male counterparts. Of the women studied, 17% are divorced, compared with only 2.4% of the men. More than half of the executive women who are divorced say their career played a part in the separation.

A study recently completed by James Baron, assistant professor of organizational behavior at Stanford University and William Bielby, associate professor of sociology at the University of California, Santa Barbara, yields similar results. Using data from the 1960s, the two men studied about 1,000 men and women in a cross section of occupations. Some 86% of their male respondents were married, compared with only 61% of the women.

"As you move up the ladder, these pressures become even greater," Mr. Baron says. "Not only is being married a disadvantage to a woman in that position, but it's an asset for a man."

Paychecks and Housekeeping

In 1971, Miss Franklin was appointed to the Nixon White House to recruit women for high-level jobs in the federal government. "Many of them were either single or divorced," she recalls. "It's hard to find men in this age group willing to be supportive and understanding of the demands on a successful woman. I know men who say, 'I support your career. It's wonderful.' But that's not what they mean. They mean I support it as long as it doesn't interfere with someplace I want you to be."

Executive women who are married are generally running the home and bringing home more of the money. On the average these women provide 56% of their household income. Sixty-eight percent of the women say their careers have been more financially rewarding than their husbands', and 78% say their careers have progressed better. About half of the women say they're responsible for the housekeeping, and 29% say they share the work with their spouse. A majority of the women with children say they have the primary responsibility for their care.

"I'm out there writing notes to the housekeeper and arranging meals," says an executive search manager queried about the study. The woman is married to an executive at a large corporation and makes more money than her husband. She says she prefers to do the housework. "I find it easier in life to manage and administer what I've been trained to do," she says, describing how they divide the work at home.

Another difference between executive men and women is mobility. While 33% of the female respondents have been asked to relocate, only 21% have done so, compared with 81% of the men. Of the women who refused a transfer, the majority say their refusal hasn't hurt their careers.

While the survey portrays an executive woman who is still bumping into obstacles along the path to success, it also shows her making progress. Nearly half of the women over 52 years of age started in clerical positions, compared with only 23% of the younger female executives, who more often started in management. The younger women also have more earning power than their elders. Some 60% of the women earning more than $106,000 are between 38 and 52, compared with only 20% of those over 52.

Although executive women have more limited educational backgrounds than their male counterparts, more than in the past are graduating from college. Some 20% of the respondents don't have a college degree, compared with 8% of the men surveyed. But

Please Turn to Page 44, Column 3

Female Executives Say That 'Being a Woman,' Insecurity Are Barriers

Continued From Page 31

34% of the younger women surveyed have advanced degrees, compared with only 14% of the older women.

Comparison of the two studies shows that female executives are also less conservative and less religious then male executives. Some 60% of the women say religion plays little or no role in their lives, while about the same percentage of men said religion was a significant or moderate influence on them.

On economic issues, 49% of the respondents say they are conservative, compared with 74% of the men. On social issues, 21% of the women say they are conservative, compared with 42% of the men. Some 80% of the women favor passage of the Equal Rights Amendment and 90% favor a woman's right to abortion.

The studies also show a difference in family background between men and women in senior management. Sixty percent of the women surveyed says they were either the oldest or only child, compared with 49% of the men. In addition, 48% of the women say they were closer to their fathers while growing up, compared with 40% who were closer to their mothers. Fifty four percent of these female executives say their mothers didn't work outside the home.

WALL STREET JOURNAL

TUES 2 NOV 82

10 September 1982
Passenger Transport

Women in Transit Review Findings on Utilization

The issue of the underutilization of women in the transit industry surfaced during the 1979 APTA Annual Meeting in New York at a session called Women in Transit.

The WIT session attracted unusual attention, and because of the overwhelming reception of the session, a WIT Task Force was appointed to review and analyze the issues which had been raised. The task force was asked to report its findings to the APTA Executive Committee at the 1980 Annual Meeting.

In brief, the task force found that the utilization of women in the transit industry is minimal at best. Acting on a recommendation of the task force, APTA created a permanent Women In Transit Committee within the framework of the Human Resources Committee. The WIT Committee was charged with developing "an ongoing program to assist women in achieving equity and parity in transit."

Since its creation, the WIT Committee has reviewed three in-depth studies to determine the current status of women in the transit industry. The first study reported on the various developmental trends affecting the overall employment of women in the U.S. from 1976 through 1985, the second was an equal opportunity study of senior managerial positions in one large transit authority, and a third reported on the current status and future potential development of women and minorities in senior managerial positions in eight selected public transit properties.

The findings were:

- women had proportionately greater representation in senior managerial jobs than men. However, far fewer women had earnings above $35,000 than did the men; 9% of the women who had earnings above $35,000, whereas 33% of the men earned more than this amount;
- a small proportion of the transit managers were women. Only 41 of the 337 managers surveyed were females; representing 12% of the respondents, minority women accounted for only 4%.
- smaller properties have made more progress than larger properties in employing women managers and in placing them in senior management jobs. Nearly 40% of the senior managers at small properties are women. Their representation, however, decreases sharply at the middle and first levels; and
- the employment of women managers seem to be a recent phenomenon. The majority of the women have been employed at the properties for five years or less, and most have been managers for about the same length of time.

The committee also developed and distributed two survey questionnaires to women already employed in the transit industry and to transit industry personnel managers. The purpose of the survey was to assess the women's need for a job bank. Of the women surveyed 79% indicated that they would use a job bank if it were availabe. Of the personnel managers surveyed 53% indicated that currently available sources are inadequate in identifying female applicants and 60% indicated they would use a central clearing house if it were available.

Elizabeth Dole a good choice

President Reagan's appointment of Elizabeth Dole as Transportation Secretary is a sound one. She is no transportation expert, but she is a proven administrator with a level political head. And her appointment, as well, is a welcome hint that Reagan may realize that not all the top talent available to the nation is male.

Reagan's female appointees have for the most part been relegated to cosmetic, low-profile posts — such as the "assistant for public liaison" White House slot in which the 46-year-old Mrs. Dole has languished for two years — leading his critics to wonder openly if his naming of the able Sandra Day O'Connor to the Supreme Court was a sop and an aberration.

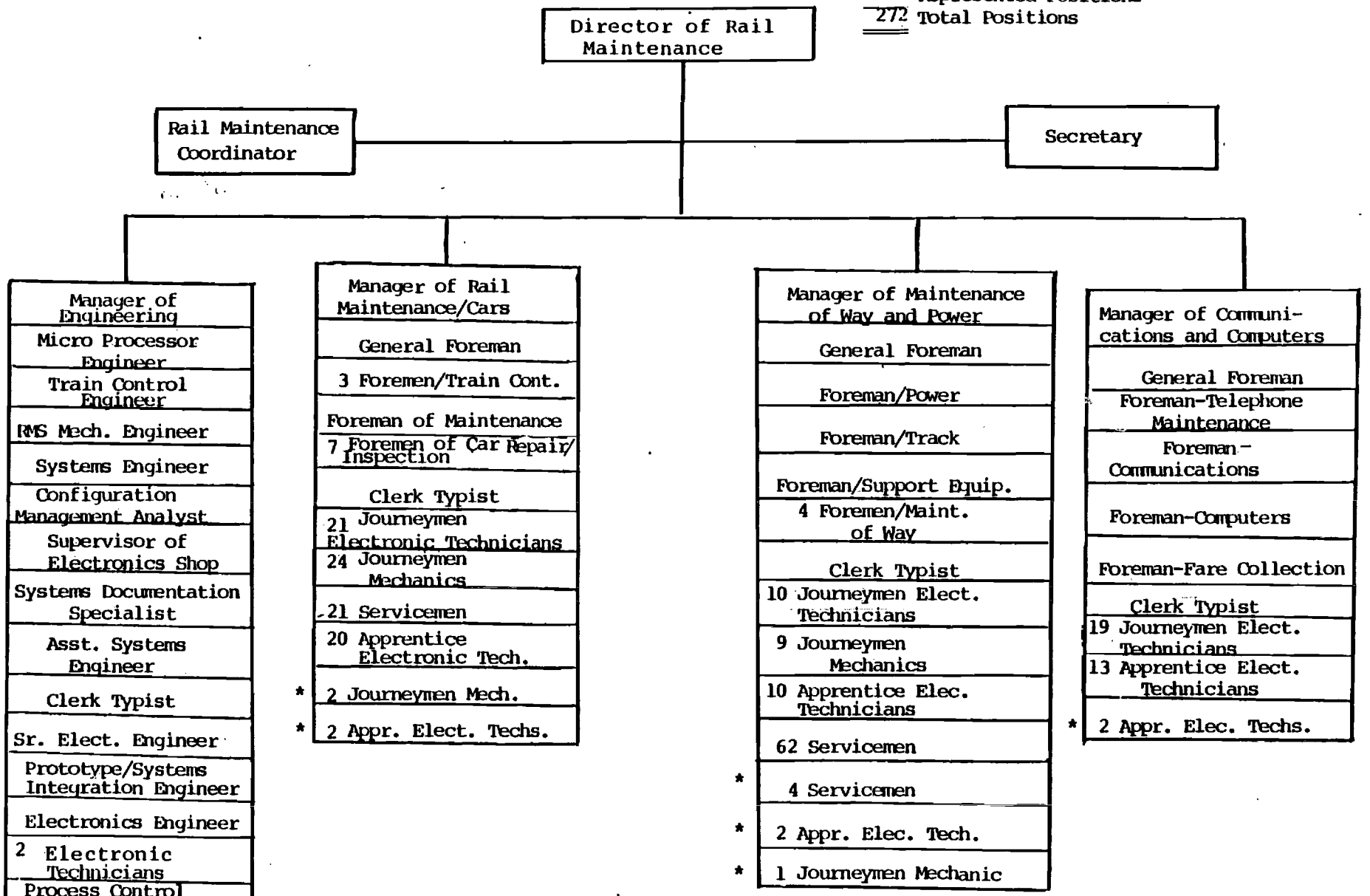
But the women in his administration are a talented and highly charged group. Mrs. Dole, for example, though perhaps best known as the wife of the Republican senator from Kansas, was a Phi Beta Kappa at Duke, a Harvard Law School graduate, a respected attorney and a member of the Federal Trade Commission before coming to Reagan's attention. And she was smart enough to have described herself publicly, after joining the White House staff, as a feminist who was "not wedded" to the Equal Rights Amendment (which Reagan opposed) while lobbying privately for the hiring of more women.

Elizabeth Dole

"There's more than one way to reach equal rights for women," she has said, and she may be right. There's encouragement in knowing that a woman of her savvy and caliber can reach Reagan.

DIVISION OF RAIL MAINTENANCE

44 Non-Represented Positions
228 Represented Positions
272 Total Positions



*Additional Positions

FOUR-YEAR SUMMARY

OF MARTA

RAIL TRANSIT SYSTEM PERFORMANCE

AUGUST 1983

SUMMARY MARTA FACT SHEET

OF SYSTEM PERFORMANCE

On-Time Performance

98.7% for month of June 1983
97.7% first year average (6/30/79 to 6/30/80)
99.0% second year average (6/30/80 to 6/30/81)
99.0% third year average (6/30/81 to 6/30/82)
98.9% fourth year average (6/30/82 to 6/30/83)
98.8% four-year average (6/30/79 to 6/30/83)

Daily Car Availability

90.8% for month of June 1983
105.6 cars average daily car availability for June
84.1% first year average (6/30/79 to 6/30/80)
86.0% second year average (6/30/80 to 6/30/81)
91.4% third year average (6/30/81 to 6/30/82)
90.5% fourth year average (6/30/82 to 6/30/83)
89.0% four-year average (6/30/79 to 6/30/83)

Transit Vehicle Fleet Size

120 accepted cars on 6/30/83
20 accepted cars at start of revenue service 6/30/79

Patronage

3,228,000 rail passengers in June 1983
12,021,000 rail passengers in first year (6/30/79 to 6/30/80)
21,112,000 rail passengers in second year (6/30/80 to 6/30/81)
18,941,000 rail passengers in third year (6/30/81 to 6/30/82)
32,064,000 rail passengers in fourth year (6/30/82 to 6/30/83)
85,829,000 total rail passengers in 4 years (6/30/79 to 6/30/83)

Systems Operations

Currently, MARTA operates seven days a week from 4:43 am to 1:30 am. E/W line trains operate at 10-minute headways during rush hour and at 15-minute headways at other times. N/S line trains operate at 6-minute headways from 6:00 am to 7:30 pm and at 10-minute headways at other times.

MARTA began East Line revenue service on 6/30/79 operating five days per week from 5:00 am to 8:00 pm with trains operating at 15-minute headways.

The West Line opened for revenue service on 12/22/79.

The North/South Line opened for limited revenue service on 12/4/81, expanded its service on 9/11/82, and again on 12/18/82.

Inauguration of Rail Service

On June 30, 1979, MARTA opened rapid rail service on the 6.7 mile East Line with 7 stations. This segment of the system operated from Avondale Station east of Decatur to Georgia State Station, where patrons caught a downtown distribution bus called the "loop ride" to their offices or to transfer points for other buses. Two and four-car trains operated on weekdays from 5:30 in the morning until 8:00 in the evening at 15-minute headways (intervals).

Service Improvement & System Extension

On September 8, 1979, regular weekend service was initiated and the system began operating seven days a week. On October 13, feeder bus service was inaugurated and transit system operating hours were increased to approximately 19 hours a day, beginning at 5:30 a.m. and continuing until 12:30 a.m. Headways were reduced to 10 minutes during rush hours with six-car trains operating at that time to accommodate the increase in passenger traffic, resulting from the routing of feeder buses into stations. MARTA opened the West Line for revenue service on December 22. It consisted of an additional 5 miles and 6 stations beginning at Five Points in downtown Atlanta and continuing west to Hightower Station. Hours of operation and train frequency remained the same. West Line feeder bus service was inaugurated June 7, 1980, and the revenue operating day was extended until 1:30 a.m.

On December 4, 1981, the North-South Line, from Garnett Station to North Avenue Station, was opened for limited revenue service. Operations consisted of single tracking through Five Points, Peachtree Center and Civic Center Stations with no stop at Peachtree Center Station. Hours of operation on the North/South Line were from 6:00 a.m. to 8:00 p.m., five days per week, Monday through Friday.

On September 11, 1982, Peachtree Center and West End Stations were opened to the public and two-track operation was inaugurated on the North/South Line. Dual track North/South revenue service was provided from North Avenue Station on the north to West End Station on the south from 5:15 a.m. to 12:44 a.m. Feeder bus service to the south end of the North/South Line was established at West End Station on September 20, 1982. The North/South Line consisted of 3 miles of dual track operation and six stations, including Five Points Station. On November 22, 1982, six minute schedules were eatablished on the North/South Line.

On December 18, 1982, Midtown and Arts Center Stations were opened to the public. Arts Center Station became the north terminal station for the North/South Line. On January 8, 1983, feeder bus service was established at the North Line stations; North Avenue, Midtown, and Arts Center. Thus at the present time, seven days a week, MARTA circulates trains throughout the East/West Line which consists of 11.7 miles of dual track and thirteen stations, and the North/South Line which consists of 4.2 miles of dual track operation and eight stations.

Transit Vehicle Fleet

At the inauguration of revenue service on June 30, 1979, the fleet consisted of 20 cars. During the third quarter of FY'82, MARTA accepted the last of the contract order for 120 cars. The fleet has remained stable at 120 cars since that time.

Daily Car Availability

Daily car availability has been consistently above the minimum to maintain the programmed level of service. Initially, the minimum daily car requirement was 12 cars. This enabled three 4-car trains to circulate on the East Line at 15-minute intervals. On October 13, 1979, the minimum daily car requirement was increased to 24 cars to provide for operation of six-car trains at 10-minute headways. On December 22, the car requirement was increased to 36 cars. This permitted operation of 6-car trains at 10-minute intervals on the full East/West Line during rush hours. On June 7, 1980, the daily car requirement was increased to 48 cars. This permitted operation of 8-car trains during rush hours. On December 4, 1981, the car requirement was increased to 54 cars, 12 cars for the North/South Line, and 42 cars for the East/West Line. On September 11, 1982, the car requirement was increased to 60 cars, 18 cars for the North/South Line and 42 cars for the East/West Line. On November 22, 1982, the car requirement was increased to 70 cars, with 28 cars for the North/South Line. The daily car requirement is depicted on the cars available chart, Figure 2.

Beginning March 13, 1981, DTO-Maintenance initiated a program of withholding fully operational cars from revenue service. By storing high mileage cars, their warranty will be extended over a longer period and their periodic preventive maintenance intervals will be extended. Should the need arise, these cars could be placed in revenue service.

The average number of cars available for service are listed by quarter in Figure 2. This chart clearly shows that the average number of cars available always exceeds the daily requirement. It is notable that not once during four years of revenue service has the Maintenance Division failed to provide the minimum number of cars required for scheduled service, a perfect record.

Figure 3 depicts car availability as a percent of the car fleet which is operational. The current FY'83 is shown as average daily car availability per month. The three previous fiscal years are shown as yearly averages, each a little higher/better than the previous year.

On-Time Performance

During its four years of operation, the MARTA rail system has produced results clearly exceeding goals previously set. The actual average on-time performance for the first twelve months is illustrated in the lower portion of Figure 4. The twelve months of fiscal year 1983 are depicted on the same Figure 4. The figure clearly shows the achievement of a stable high level of on-time performance. This stable high level of performance started in the ninth month of FY'80 and continued through FY'81 and FY'82. The average of 99.0% OTP for fiscal years '81 and '82 compares favorably to the first year

operational goal of 93% of trips operating within four minutes of schedule. This four-minute criterion is the same standard used by other transit properties to evaluate their performance.

In June, the most recent month of full East/West and North/South service, on-time performance averaged 98.7%, and daily performance during each of the 30 days in the month exceeded the 93% criterion. The system is providing reliable, on-time service.

Patronage Data

The rail system has been well accepted by the citizens of this community. Patronage grew during the first year of operation from an initial level of 738,000 for three months. Patronage reached a high of 5,513,000 for the three months following the initiation of feeder bus service on the West Line, and has been above 5,000,000 per quarter since that time. The ridership in the first year of operation (FY'80) was 12.02 million; the second year (FY'81) 21.11 million and during the third year (FY'82) 18.94 million people rode the trains. The September 11, 1982 opening of Peachtree Center and West End Stations with dual track operations and feeder bus service to Garnett caused a significant increase in ridership. The average weekday ridership went from a level of around 70,000 for the four quarters ending August 31, 1982, to a level of 94,000 for the quarter ending December 31, 1982, and then to a level of 127,000 for the most recent quarter ending June 30, 1983. The total ridership for MARTA's four years of rail revenue service was 85.8 million people. Figure 5 illustrates the average number of weekday riders on a quarterly basis for FY'81, FY'82, and FY'83.

Upcoming Major Milestones

MARTA is proceeding to expand the North/South Line to Brookhaven on the north and to Lakewood on the south by December 1984.

Summary

In summary, MARTA's four years of rail operation have produced results clearly exceeding the goals previously set. The system is providing reliable, on-time service. Patronage over the first six months of operation consisted almost entirely of the East Line with the full East-West operating during the latter thirty-three months. The patronage on the North-South Line consisting primarily of patrons making connections with the East-West Line, was minimal during the ten months of limited service, increased dramatically when full service was established for the Phase 3A/4A and B1 South Line, and again when full service was established for the B1 North Line.

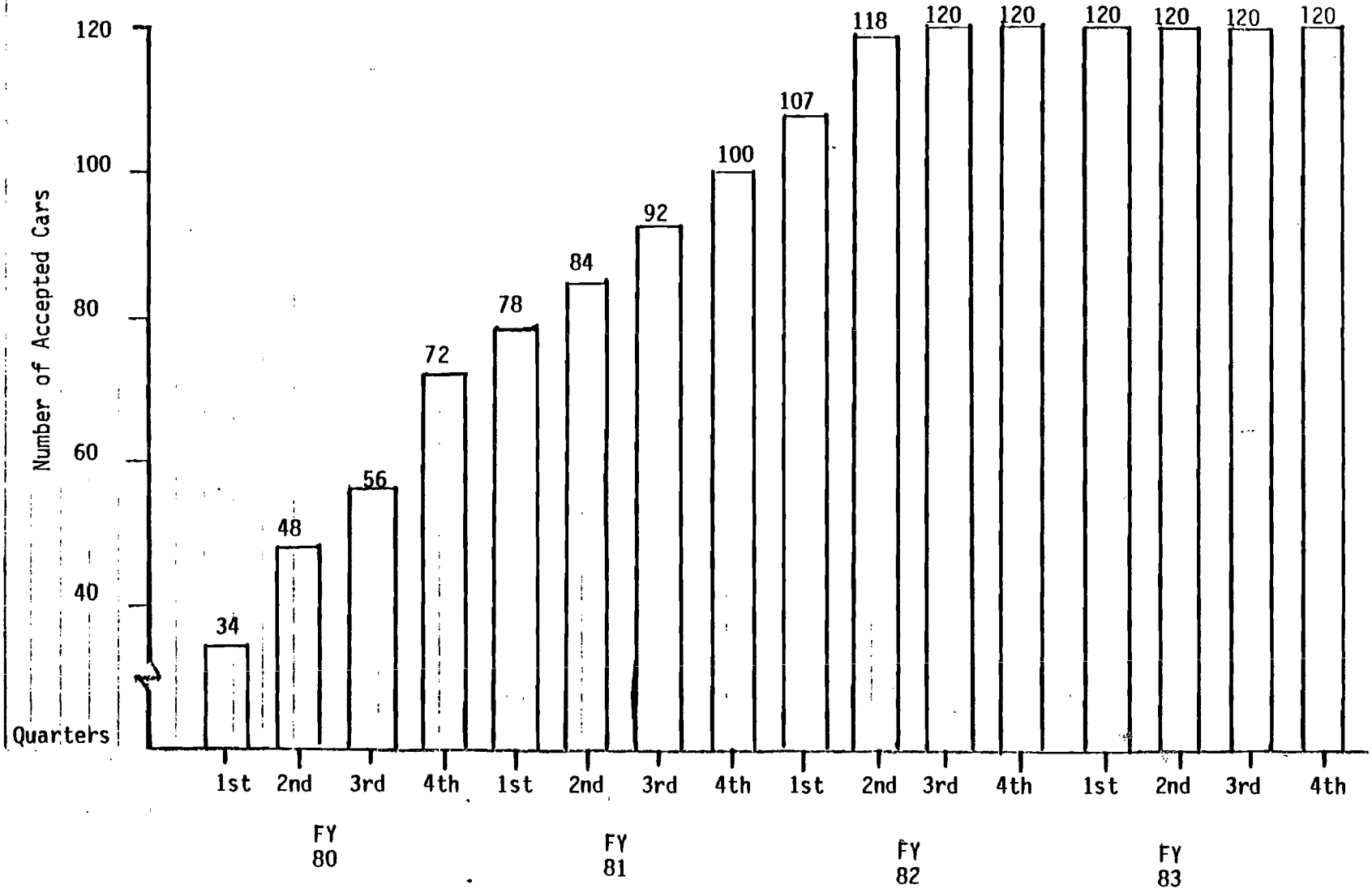
marta

SUBJECT _____ BY _____ DATE _____

PROJECT NO. _____ CHKD _____ DATE _____

SHEET NO. _____ OF _____

ACCEPTED TRANSIT VEHICLES BY QUARTER

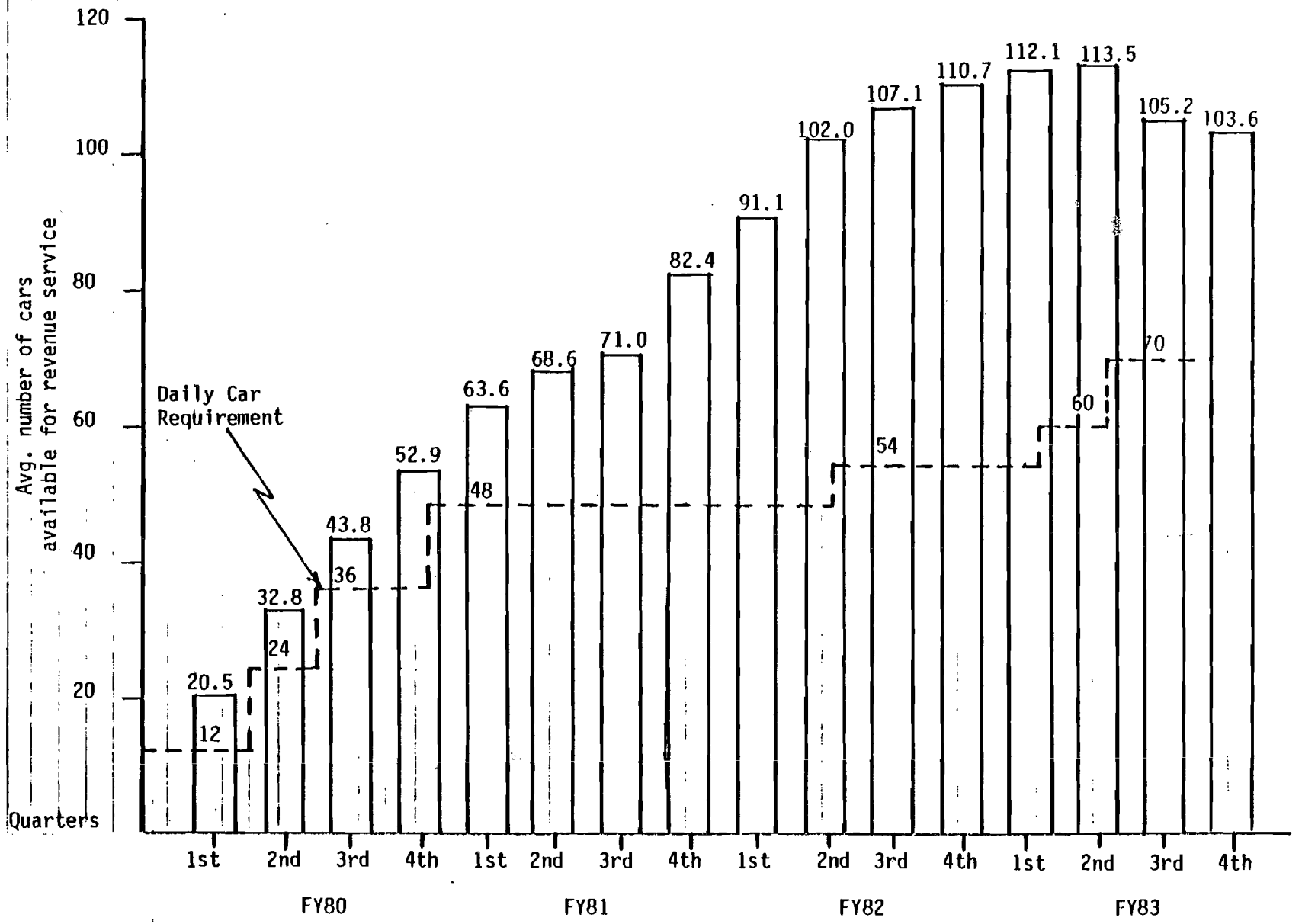


SUBJECT _____ BY _____ DATE _____

PROJECT NO. _____ CHKD _____ DATE _____

SHEET NO. _____ OF _____

AVERAGE NUMBER OF CARS AVAILABLE PER QUARTER



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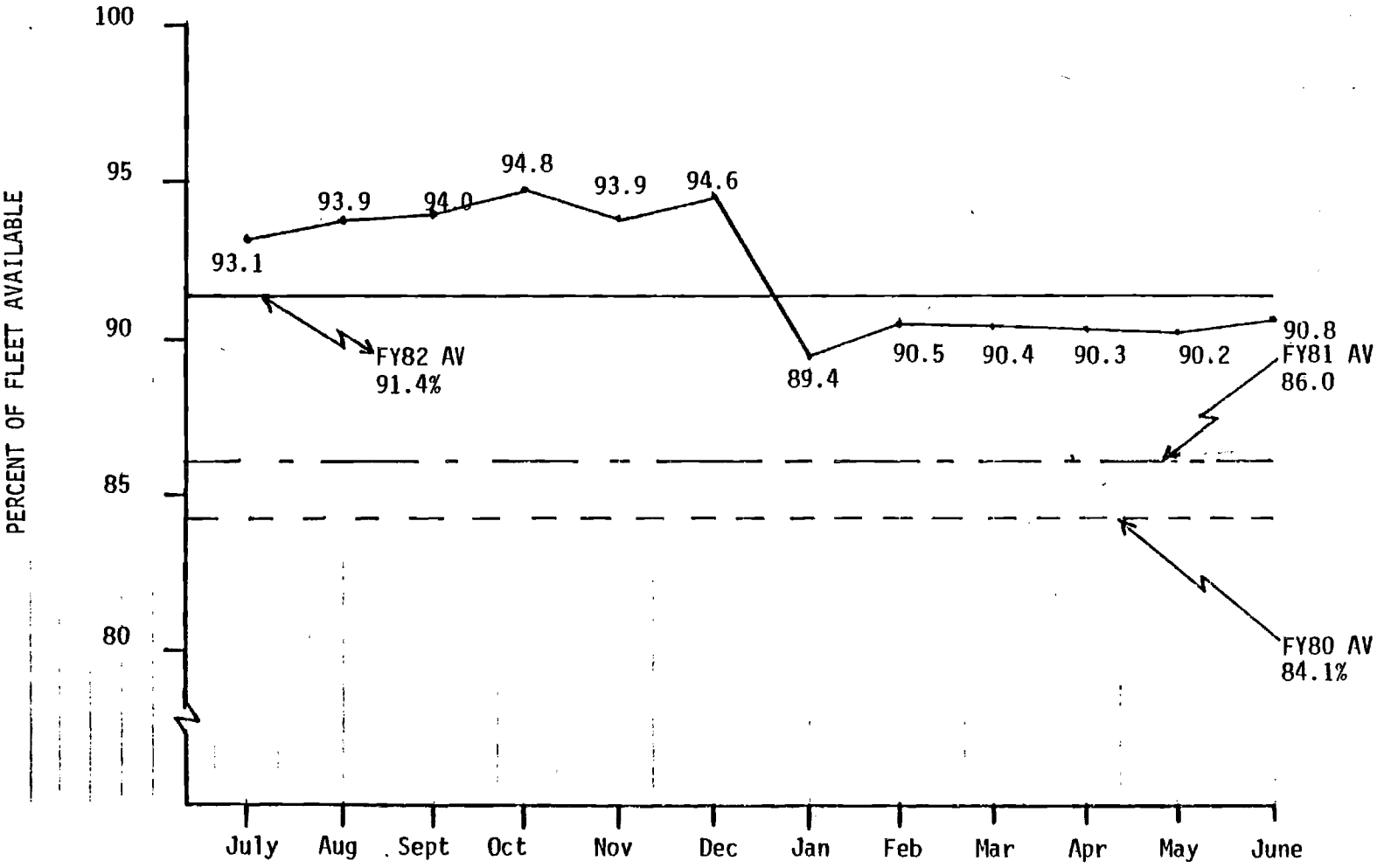
SUBJECT _____ BY _____ DATE _____

PROJECT NO. _____ CHKD _____ DATE _____

SHEET NO. _____ OF _____

AVERAGE DAILY CAR AVAILABILITY PER MONTH
FY 83



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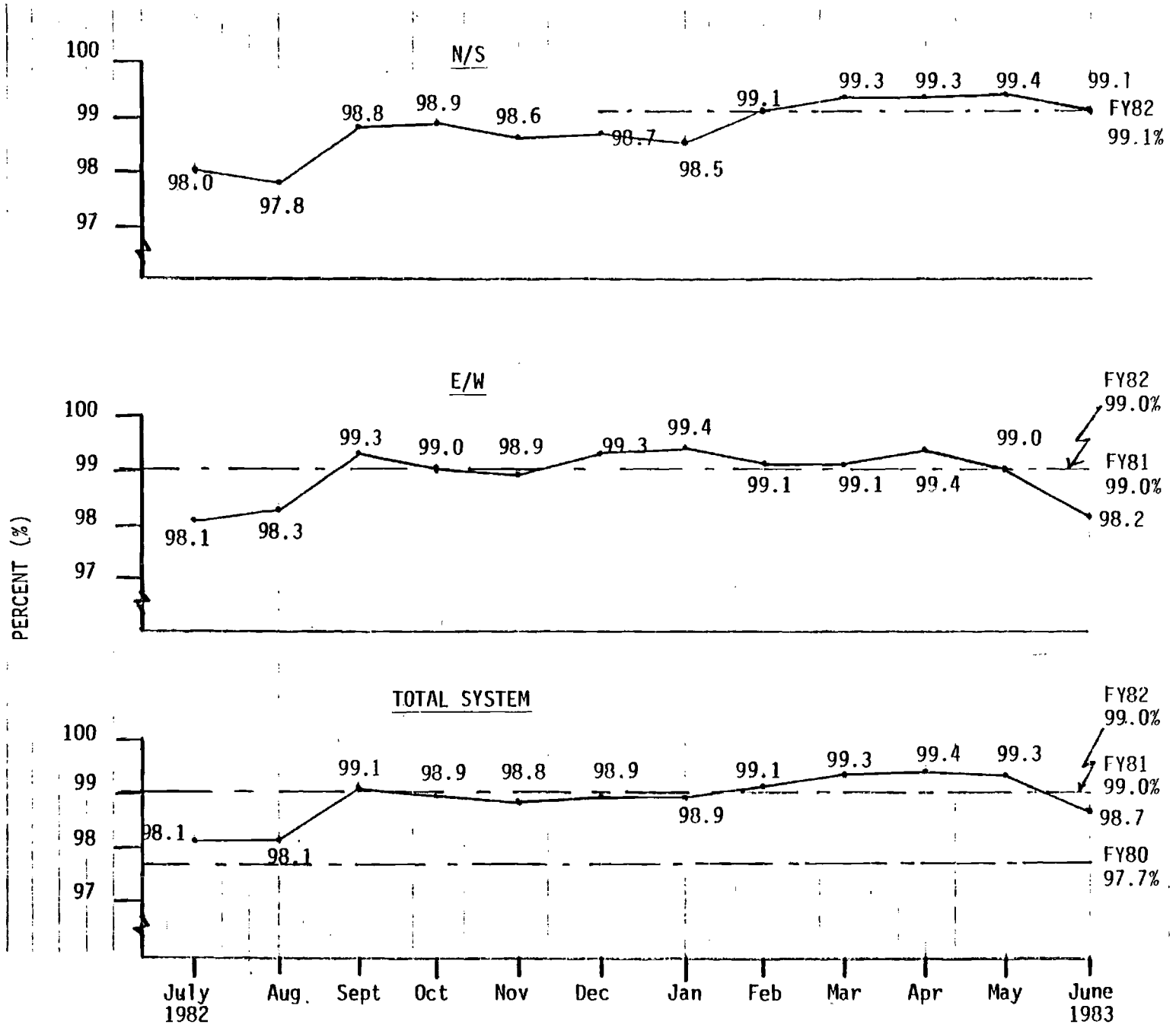
SUBJECT _____ BY _____ DATE _____

PROJECT NO. _____ CHKD _____ DATE _____

SHEET NO. _____ OF _____

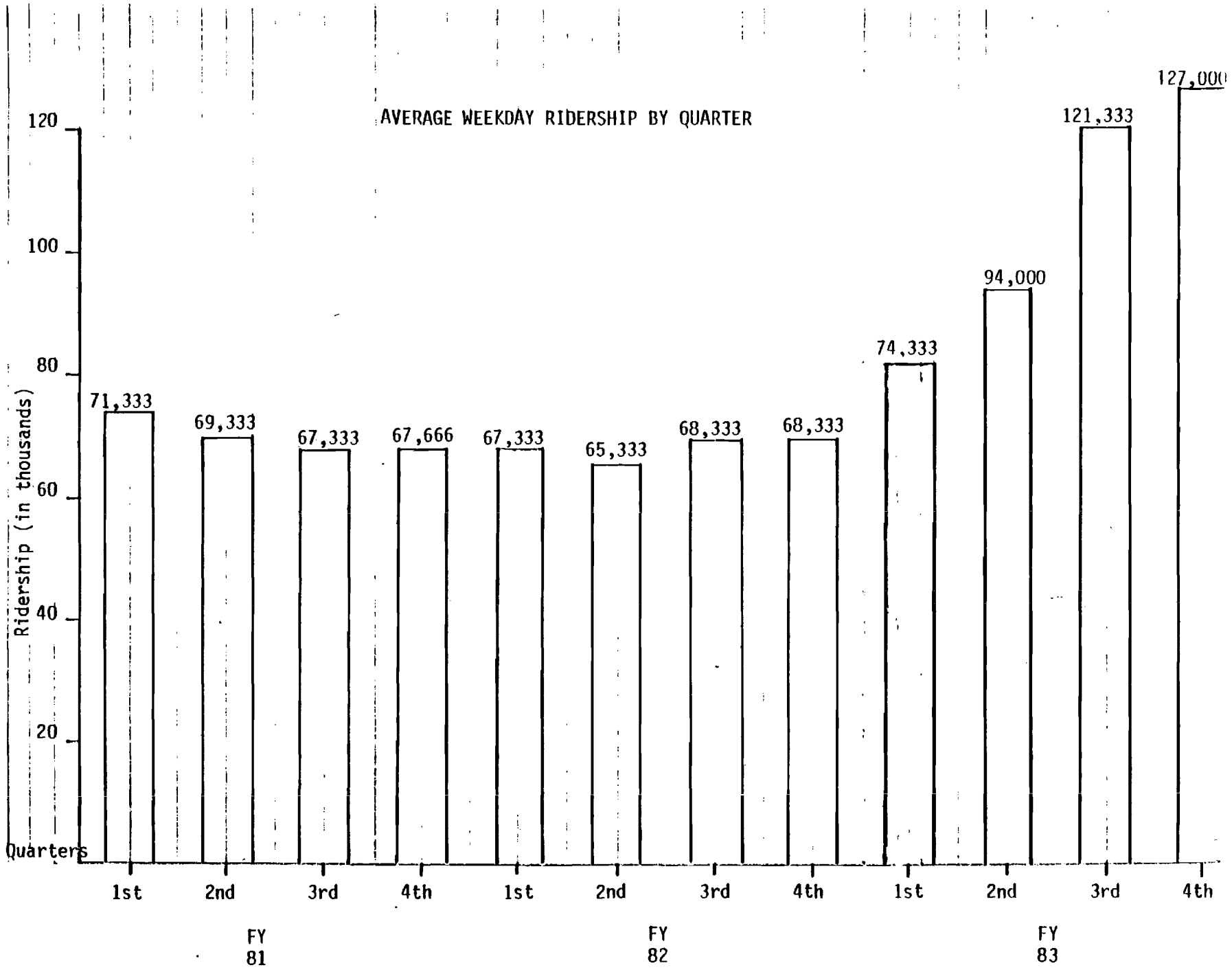


AVERAGE DAILY ON-TIME PERFORMANCE

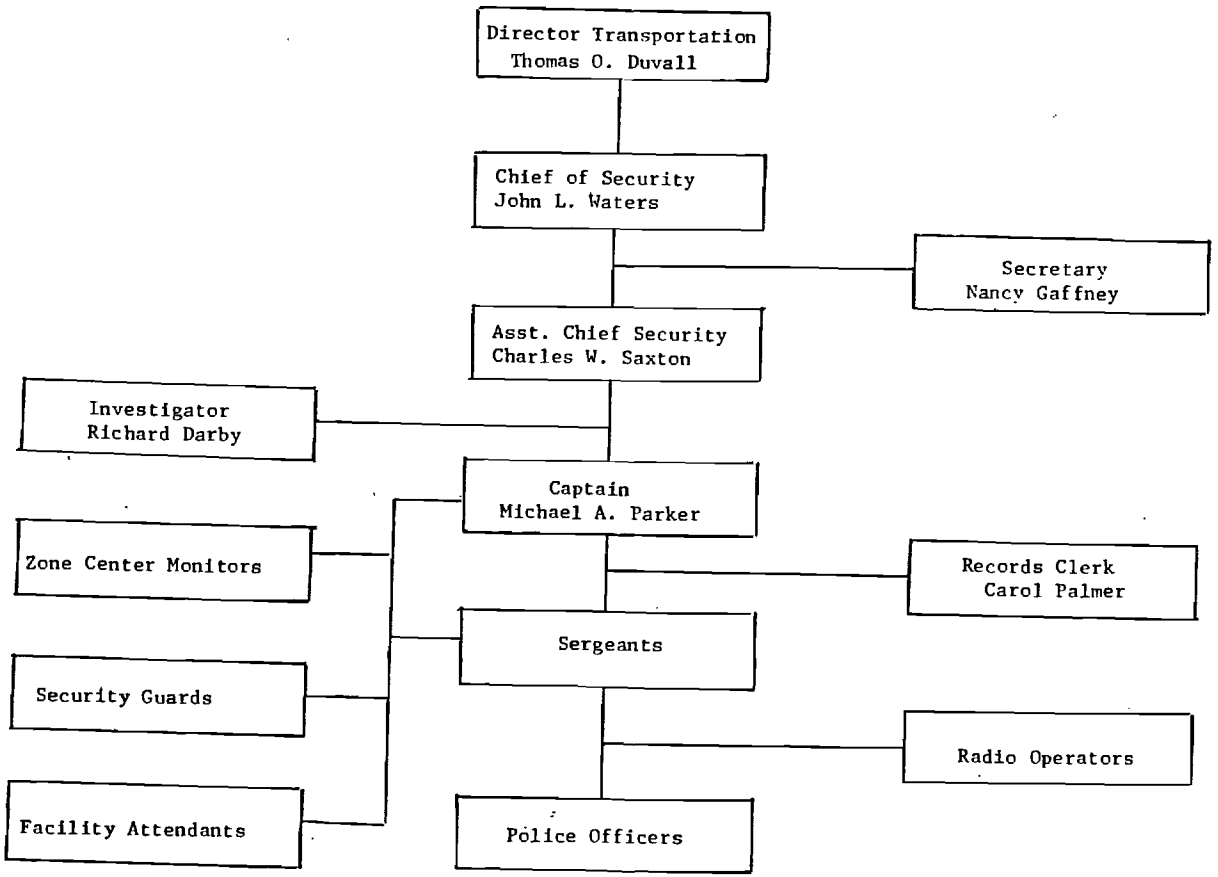
PROJECT NO. _____ SUBJECT _____ BY _____ DATE _____

marta CHKD _____ DATE _____

SHEET NO. _____ OF _____



MARTA TRANSIT POLICE ORGANIZATION CHART



November 1983

FUNCTIONS

OF

THE MARTA TRANSIT POLICE/SECURITY DIVISION

The MARTA Transit Police Division was created by an act of the Georgia General Assemby and presently consists of the following personnel:

(A) Chief of Security (1)
(B) Secretary (1)
(C) Assistant Chief of Security (1)
(D) Transit Police Captain (1)
(E) Records Clerk (1)
(F) Transit Police Sergeants (7)
(G) Investigator (1)
(H) Sworn Transit Police Officers (38)
(I) Security Guards (13)
(J) Zone Center Monitors (22)
(K) Facility Attendants (Part-Time) (18)
(L) Radio Operators (3)

MARTA Police Officers are responsible for patrolling 15.2 miles of rail, twenty (20) rail stations, parking lots which consist of approximately 5,000 parking spaces. Daily ridership of the rail line is approximately 150,000 patrons.

To provide patrons and employees with a system that is both SAFE and SECURE, Transit Police Officers ride trains, patrol stations, and parking lots to maintain high visiability to detect and deter criminal activity. Police Officers are responsible for the enforcement of all laws, regulations, and departmental orders.

In addition to physical security, twenty-two (22) Zone Center Monitors observe activity within the twenty (20) rail stations through a complex closed circuit television system. These cameras are located in facilities known as Zone Centers and are equipped with pan, tilt, and zoom capabilities, as well as video taping and instant replay. Zone Center Monitors provide assistance to the public by providing information to patrons and other assistance. Patrons have access to the Zone Center Monitors by the patron assistance and police emergency telephones located throughout each rail station.

In areas not covered by the scrutiny of the CCTV camera lens additional measures are taken to ensure that patrons and employees are safe and secure.

Security Guards are stationed at bus operating facilities to provide physical security to garages and parking lots. Facilities are patrolled on foot by the Security Guards with written and raio reports of any unusual findings being made.

Facility Attendants staff restrooms at the Avondale, Hightower, and Five Points rail stations, as an extra measure of security to patrons and employees.

The communication system for the MARTA Transit Police is staffed by three (3) Radio Operators. These Operators maintain lines of communication within MARTA and outside police agencies as well as dispatching officers to locations by use of the two-way radio. Officers are directed to calls for service by the Radio Operator on a priority basis.

Calls for service to the Bus Operators are answered as they arise by mobile units responding in marked police vehicles. Calls are dispatched by the two-way radio with the mobile unit intercepting the bus on its route to avoid schedule delays.

MARTA Police Officers are responsible for the filing of all appropriate police reports and the follow-up criminal cases to their final determination. Cases of criminal activity requiring extensive follow-up investigation are assigned to the investigator's office after the intial field report is made.

ng

January 27, 1984

MONTHLY CRIME REPORT

PARKING LOTS ACTIVITY SECTION

Location	THEFT FROM AUTO		THEFT OF AUTO		ARREST
	NORTH LOT	SOUTH LOT	NORTH LOT	SOUTH LOT	
RAIL PARKING LOTS					
Avondale	0	15	1	4	0
Eastlake	6	0	1	0	0
Candler Park	1	2	0	0	0
Inman Park	0	0	0	0	0
King Memorial	0	0	0	0	0
Vine City	0	0	0	0	0
Ashby	0	0	0	0	0
West Lake	1	0	0	0	0
Hightower	3	5	1	0	0
Arts Center	0	0	0	0	0
West End	2	4	1	0	0
PARK AND RIDE LOTS					
Stone Mountain	0	0	0	0	0
Abernathy	2	0	0	0	0
Doraville	0	0	0	0	0
Memorial Drive	0	0	0	0	0
FACILITY LOTS					
Administration Building	0	0	0	0	0
M.D.W. Building	1	0	0	0	0
Peachtree Summit	0	0	0	0	0
Brady Avenue	0	0	0	0	0
Brownsmill	0	0	0	0	0
Laredo	0	0	0	0	0

Total Thefts from auto 42 Arrest 0

Total Thefts of auto 8 Arrest 0

Total auto recovered 1 Arrest 0

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY
MONTHLY CRIME REPORT

BUS DECEMBER , 1983

CRIME CATEGORY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	80'	81'	82'	83'
AGGRAVATED ASSAULT	0	1	0	1	0	1	1	2	1	0	0	1	7	2	16	8
ASSAULT/ BATTERY	1	4	2	4	3	1	3	6	3	8	2	4	17	26	36	41
HOMOCIDE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
KIDNAPPING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
RAPE	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
ARMED ROBBERY	1	0	0	0	1	0	0	0	0	0	1	0	5	5	2	3
PICK-POCKET SNATCH THEFT	1	4	2	3	3	3	1	4	4	3	1	2	2	9	48	31
DISORDERLY CONDUCT	5	16	2	18	4	5	5	13	10	15	7	12	433	170	91	112
DISORDERLY WHILE INTOXICATED	6	9	13	17	8	3	4	3	8	6	9	11	44	55	92	97
SMOKING/EATING DRINKING	0	0	1	2	1	0	2	0	1	0	0	2	15	13	13	9
FARE EVASION	5	3	1	1	1	1	0	4	3	5	3	4	41	18	30	31
GRAFFITI/ VANDALISM	7	12	22	13	11.	7	5	5	4	5	4	1	-	25	126	96
LITTERING/ PLAYING RADIO	0	0	0	0	1	0	0	0	0	4	0	0	7	1	2	5
SEXUAL OFFENSES (excluding Rape)	0	0	0	1	1	0	0	0	1	0	0	0	-	5	5	3
DELAYING TRAIN OR BUS	3	1	0	0	1	0	0	3	2	2	0	2	-	15	34	14
THROWING MISSILES	7	1	0	2	0	7	11	3	9	11	6	9	-	73	5	71
MOTOR VEHICLE THEFTS	0	0	0	0	0	0	0	0	0	0	0	0	-	1	2	0
THEFTS FROM MOTOR VEHICLES	0	0	0	0	0	0	0	0	0	0	0	0	-	3	9	0
TOTAL ARRESTS	20	34	38.	34	17	7	12	30	24	25	16	25	353	230	210	522

Monthly Crime Report for MARTA Bus Police

Section: 1, Incidents by Route and Block

Route # and Block #		Operator	Location	Incident	Disposition
1 12/22	4	487	Alabama @ Broad Street	Disorderly conduct	Report
M2 12/07	1	584	Sylvan Road & 166	Disorderly conduct	Arrest
3 12/22	2	933	Auburn Avenue to Euclid	Vandalism	Report
4 12/24	2	1253	Armstrong & Piedmont Avenue	Simple battery	Report
4 12/05	3	965	Peachtree & Martin Luther King Drive	Theft of services	Arrest
5 12/02	1	1320	West Peachtree	Disorderly while intoxicated	Arrest
7 12/08	1	?	Pryor @ Wall Street	Disorderly while intoxicated	Arrest
13 12/10	?	?	West Peachtree	Disorderly while intoxicated	Arrest
22 12/16	1	1002	Rockyford & College Avenue	Criminal damage to property	Report
23 12/01	?	?	Arts Center Station	Attempted pick pocket	Report
24 12/17	1	1294	Eastlake Station	Consuming alcohol in public	Arrest
28 12/01	2	877	Wyman @ Memorial Drive	Damage to bus	Report
37 12/18	1	1269	Garden Hills	Disorderly conduct	Report
48 12/08	?	856	Inman Park Station	Missile thrown	Report

Monthly Crime Report for MARTA Bus Police

Section: 1, Incidents by Route and Block

Route # and Block #	Operator	Location	Incident	Dispositi
66 12/23 1	390	Hightower Station	Disorderly while intoxciated & smoking on bus	Arrest
66 12/08 2	1275	Lynhurst @ Lynway	Disorderly conduct & delaying operations	Arrest
71 12/13 ?	707	West End Station	Theft of services	Arrest
74 12/28 4	1137	Whitesmill Road	Missile thrown	Report
83 12/20 3	?	Campbellton Road	Disorderly while intoxicated	Arrest
83 12/23 4	271	West End Station	Attempted Robbery	Report
89 12/01 ?	?	Peachtree & Marietta Street	Pick pocket	Report
97 12/01 1	1406	Broad @ Alabama Street	Disorderly conduct	Report
100 12/27 1	187	Pryor @ Ridge	Damage to bus	Report
107 12/14 1	681	Pryor & Wall Street	Disorderly while intoxicated	Arrest
107 12/29 1	?	Wall @ Pryor Street	Disorderly while intoxicated, simple battery & terroristic threats	Arrest
114 12/08 1	721	Columbia @ Glenwood	Disorderly conduct	Report
120 12/12 ?	?	City of Stone Mountain	Disorderly conduct	Report
120 12/02 3	?	East Ponce de Leon Avenue	Possession of marijuana	Arrest

Monthly Crime Report for MARTA Bus Police

Section: 1, Incidents by Route and Block

Route # and Block #		Operator	Location	Incident	Disposition
48 12/20	1	856	Constitution & Forest Park	Missile thrown	Report
49 12/14	3	1099	Pryor @ Alabama Street	Disorderly while intoxicated	Arrest
50 12/17	1	?	Walton & Fairlie Street	Disorderly while intoxicated & Terroristic threats	Arrest
50 12/15	2	1036	Peachtree Street	Theft by taking (Operator)	Report
50 12/06	2	219	Maynard Court Apartments	Disorderly conduct	Report
50 12/23	3	1417	Yates @ Wilkes Circle	Missile thrown	Report
50 12/23	4	764	Bankhead Highway	Missile thrown	Report
50 12/27	8	806	Bowen Homes	Theft from bus	Report
51 12/06	4	912	West Lake Station	Disorderly while intoxicated	Arrest
54 12/27	1	142	Macon Drive & Old Hapeville Road	Delaying bus, smoking on bus, disorderly conduct, simple battery, & obstructing an officer	Arrest 2
54 12/30	2	?	Hapeville Road	Simple battery & abusive & profane language	Arrest
62 12/24	2	1277	Campbellton Road	Missile thrown	Report
65 12/06	11	1188	Courtland @ Currie	Missile thrown	Report

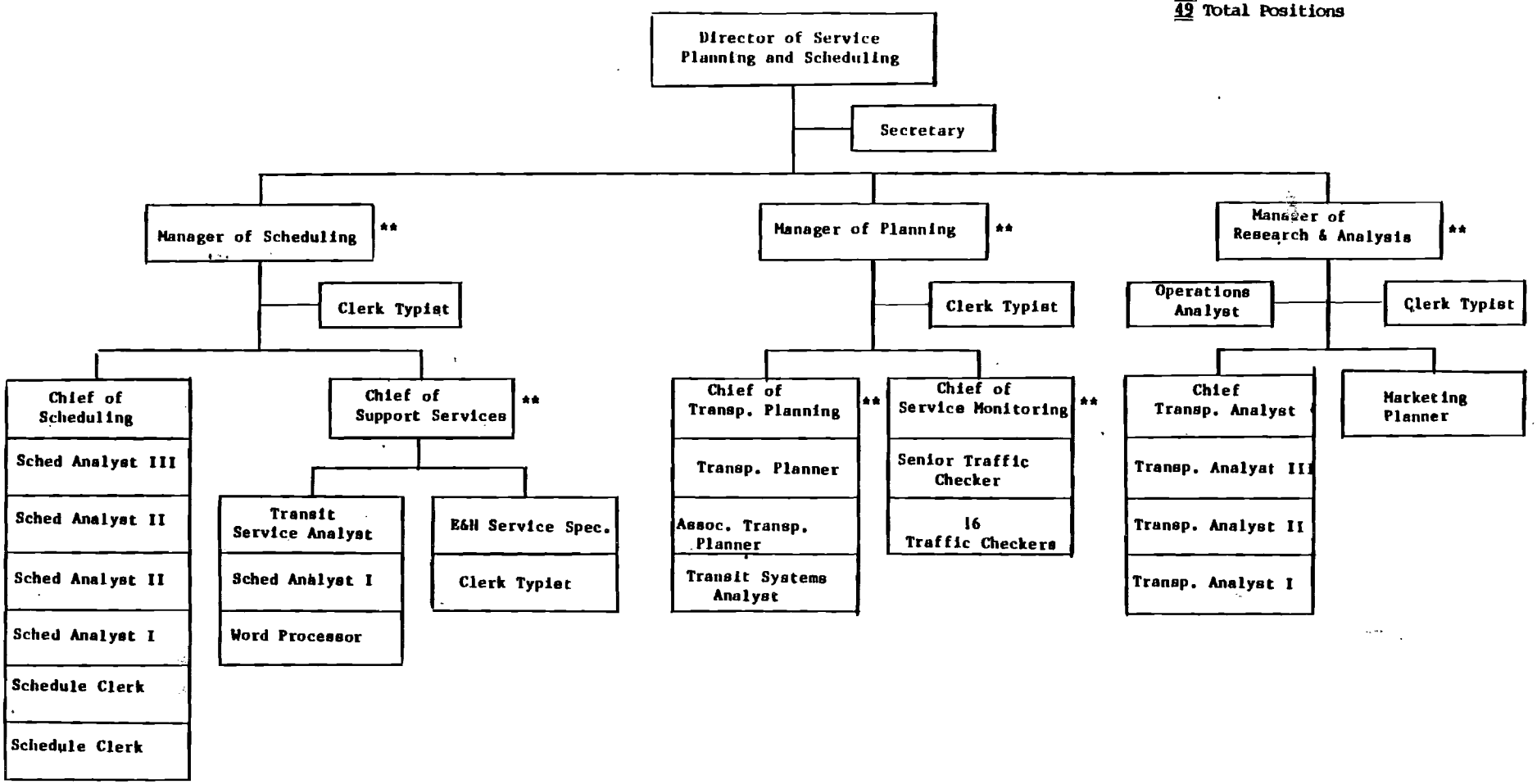
Monthly Crime Report for MARTA Bus Police

Section: 1, Incidents by Route and Block

Route #	and Block #	Operator	Location	Incident	Disposition
122 12/12	?	?	Reed Street & Cedar Street	Disorderly conduct	Report
165 12/02	5	568	Kimberly Way	Missile thrown	Report
170 12/13	2	540	Campground & Campbellton Road	Missile thrown	Report
* * * * * * * * * *	* * * * * * *	* * * * * * * *	* * * * * * * * * * * * * * * *	* * * * * * * * * * * *	* * * * * *
12/02		563	Mt. Vernon Road & N. Peachtree Road	Aggravated assault	Report
12/08		1134	Candler Park Station	Theft of services	Arrest
12/10		992	Marietta & Cone Street	Theft of services & violation of knife ordinance	Arrest
12/18		?	Capitol Avenue	Disorderly while intoxicated	Arrest
12/22		?	Alabama @ Broad Street	Disorderly conduct	Arrest 2
12/19		819	Northside Parkway	Simple battery	Arrest

WEDNESDAY

8 Represented Positions
49 Total Positions



**Pending Classification

ROUTE 66 LYNHURST - GREENBRIAR

WEEKDAY **Schedule No.** 2 **Time Card for Block No.** 1

In Effect June 28, 1982
Revised
Revised

Browns Mill Garage Lv.		507 (B)	AM									
Greenbriar		532	632	732	832	932	1032	1132	1232	132	232	332
Childress Dr. & Landrum Dr.		538	638	738	838	938	1038	1138	1238	138	238	338
Harbin Rd. & Cascade Rd.		544	644	744	844	944	1044	1144	1244	144	244	344
Lynhurst Dr. & B. Mays Dr.		549	649	749	849	949	1049	1149	1249	149	249	349
Hightower Station Arr.		559	659	759	859	959	1059	1159	1259	159	259	359
Hightower Station Lv.		602	702	802	902	1002	1102	1202	102	202	302	402
Greenbriar		432	532	632	732	832	932	1032	1125			
Childresd Dr. & Landrum Dr.		438	538	638	738	838	938	1038	To			
Harbin Rd. & Cascade Rd.		444	544	644	744	844	944	1044	Garage			
Lynhurst Dr. & B. Mays Dr.		449	549	649	749	849	949	1049	(C)			
Hightower Station Arr.		459	559	659	759	859	959	1059				
Hightower Station Lv.		502	602	702	802	902	1002	1105				
Browns Mill Garage Arr.									1153	PM		

NOTE: (B) From Garage via
R-Hamilton Blvd.
R-Browns Mill Rd.
R-Crown Rd.
R-Ramp to I-75 Northbound
cont. I-75 Expwy.
R-Ramp to Cleveland Ave.
L-Cleveland Ave.
R-Norman Berry Dr.
cont. Norman Berry Dr.
to Headland Dr.
cont. Headland Dr.
R-Greenbriar Pkwy. to
End of Line.

NOTE: (C) To Garage via
Cont. Greenbriar Pkwy
R-Ramp to I-166 Eastbound
cont. 166 Expwy.
R-Ramp to I-75/85 Southbound
cont. I-75 Southbound
R-Ramp to N. Central Ave.
L-Central Ave.
cont. Crown Rd.
L-Browns Mill Rd.
L-Hamilton Blvd. to
Garage.

SEE ATTACHED SHEET FOR ROUTING.

53-0185

ROUTE 66 LYNHURST & GREENBRIAR

In Effect: JUN. 28, 1982
Revised:
Revised:

Schedule No.

ATTACH ROUTING SHEET

(TO BE ATTACHED TO ROUTE 66 WEEKDAY, SATURDAY & SUNDAY RUN CARDS)

OUTBOUND ROUTING:
FROM HIGHTOWER STATION
VIA: DRIVEWAY TO
R-MLK JR. DR.
L-LYNHURST DR.
L-CASCADE RD.
R-HARBIN RD.
R-LANDRUM DR.
L-CHILDERS DR.
R-HEADLAND DR.
R-GREENBRIAR PARKWAY
TO BUS STOP SHELTER AT
GREENBRIAR SHOPPING CTR.
LAYOVER AT BUS STOP
SHELTER AM & PM

INBOUND ROUTING:
FROM GREENBRIAR PARKWAY
AT BUS STOP SHELTER VIA:
GREENBRIAR PARKWAY
R-CAMPBELLTON RD.
L-CHILDERS DR.
R-LANDRUM DR.
L-HARBIN RD.
L-CASCADE RD.
R-LYNHURST DR.
R-MLK JR. DR.
L-DRIVEWAY TO
HIGHTOWER STATION

S83

marta.

RUN ASSIGNMENTS
ALL RUNS ARE SUBJECT TO CHANGE OR ANNULMENT

ROUTE 66

For WEEKDAY Schedule No. 2

LYNHURST-GREENBRIAR

In Effect June 28, 1982

Run No.	Block No.	Route No.	Relief Point	Time On	Time Off	Relief Point	Platform Time	Report Time	Premium Time	Trv. Time	Bonus Time	TOTAL TIME PAID	OPERATOR	BADGE NO.
1	1	66	C	5:07a	1:02p	HS	7:55	:10		:47		8:52		
	2	66	C	5:37a	10:32a	HS								
2	1	66	HS	1:02p	4:02p	HS	7:55	:10		:47		8:52		
3	2	66	HS	10:32a	5:32p	HS	7:00	:10			1:00	8:10		
	10	83	C	3:19p	4:54p	WES	1:35							
4	2	66	HS	5:32p	11:24p	C	5:52	:10	:03		:38	8:18		
5	1	66	HS	4:02p	11:53p	C	7:51	:10		:47		8:48		

NOTE: The notations in the columns headed "Relief Point" are explained as follows:

C. Bus in or out of Browns Mill Garage.
H.S. Relief at Hightower Station
W.E.S. Relief at West End Station.

	THESE ASSIGNMENTS	FROM RT. 83	TOTAL RT. 66
TOTAL BUS HOURS:	38:08	1:35	36:33
TOTAL R.T. TIME:	:50	--	:50
TOTAL O.T. PREM:	:03	--	:03
TOTAL TRAVEL TIME:	2:21	--	2:21
TOTAL BONUS:	1:38	--	1:38
TOTAL TIME PAID:	43:00	1:35	41:25

CORR. FOR: June 28, 1982

REV. FOR: September 19, 1983

5-4-1-0-0

CALENDARS:	Current Month	Last Year
	September 1983	September 1982
Weekdays:	21	21
Saturdays:	4	4
Sundays:	5	5

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT OPERATIONS

STATISTICS SUMMARY

OPERATING MONTH

September 1983

	THIS MONTH				FISCAL YEAR TO DATE			12 MONTH MOVING TOTAL			
	Bus Statistics	Rail Statistics	Total System	% Δ This Mo./ This Month Last Year	Bus Statistics	Rail Statistics	Total System	Bus Statistics	Rail Statistics	Total System	% Δ This Mo./ This Month Last Year
MILES AND HOURS:											
Vehicle Miles	2,376,807	453,529	2,830,336	+ 1.8	7,275,598	1,378,170	8,653,768	28,810,289	5,294,763	34,105,052	+ 0.7
Vehicle Hours	170.271	23,868	194,139	+ 0.1	521,011	72,746	593,757	2,074,042	278,904	2,352,946	- 0.6
System Speed	13.96	19.00	14.58	+ 1.7	13.96	18.94	14.57	13.89	18.98	14.49	+ 1.3
PASSENGERS:											
Revenue Pass.(Linked)	3,393,000	1,414,000	4,807,000	- 7.6	10,283,000	4,440,000	14,723,000	41,919,000	16,331,000	58,250,000	+ 0.8
Total Pass.(Unlinked)	6,812,000	3,228,000	10,040,000	+ 3.5	20,924,000	9,994,000	30,918,000	83,950,000	36,339,000	120,289,000	+13.7
Total Pass./Mile	2.87	7.12	3.55	+ 1.7	2.88	7.25	3.57	2.91	6.86	3.53	+13.1
Total Pass./Hour	40.01	135.24	51.72	+ 3.3	40.16	137.38	52.07	40.48	130.29	51.12	+14.4
EXPENSES:											
Net Operating Exp.	XXX	XXX	$ 8,105,680	- 3.6	XXX	XXX	$ 24,163,685	XXX	XXX	$ 96,716,279	+ 1.4
Operating Expense	$ 6,264,587	$ 1,914,901	$ 8,179,488	- 3.2	$ 18,829,246	$ 5,479,956	$ 24,309,202	$ 76,315,488	$ 20,865,177	$ 97,180,665	+ 1.3
Opr. Exp./Rev. Pass.	XXX	XXX	$ 1.70	+ 4.9	XXX	XXX	$ 1.65	XXX	XXX	$ 1.67	+ 0.6
Opr. Exp./Veh. Mi.	$ 2.64	$ 4.22	$ 2.89	- 4.9	$ 2.59	$ 3.98	$ 2.81	$ 2.65	$ 3.94	$ 2.85	+ 0.7
Opr. Exp./Veh. Hr.	XXX	XXX	$ 42.13	- 3.4	XXX	XXX	$ 40.94	XXX	XXX	$ 41.30	+ 2.0
Veh.-Only Cost/Mi.	$ .78	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Opr.-Sup. Cost/Hr.	$ 16.80	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
REVENUES:											
Passenger (Reg.Serv.)	$ 1,861,132	$ 757,238	$ 2,618,370	+ 0.7	$ 5,687,610	$ 2,405,401	$ 8,093,011	$ 25,673,114	$ 5,962,440	$ 31,635,554	+ 2.5
Total Pass. Related	$ 1,953,297	$ 757,238	$ 2,710,535	---	$ 5,969,189	$ 2,405,401	$ 8,374,590	---	---	---	---
Total Transit Related	$ 2,138,271	$ 757,238	$ 2,895,509	+ 0.6	$ 6,559,897	$ 2,405,401	$ 8,965,298	$ 29,119,887	$ 5,962,440	$ 35,082,327	+ 2.3
Average Fare	XXX	XXX	$ .5447	+ 9.0	XXX	XXX	$ .5497	XXX	XXX	$ .5452**	+ 2.1
Pass. Rev./Opr. Exp.	XXX	XXX	.3201	+ 4.1	XXX	XXX	.3329	XXX	XXX	.3255	+ 1.2
SUBSIDIES:											
* Local Opr. Subsidy	XXX	XXX	$ 4,793,504	- 2.5	XXX	XXX	$ 13,948,387	XXX	XXX	$ 54,517,436	+ 4.0
Federal Opr. Subsidy	XXX	XXX	$ 416,667	-32.4	XXX	XXX	$ 1,250,000	XXX	XXX	$ 7,116,516	-18.1
Total Opr. Subsidy	XXX	XXX	$ 5,210,171	- 5.8	XXX	XXX	$ 15,198,307	XXX	XXX	$ 61,633,952	+ 0.9
Sales Tax Collected	XXX	XXX	$ 9,316,330	+ 8.7	XXX	XXX	$ 29,194,911	XXX	XXX	$ 113,735,811	+ 7.4
Local Sub./Sales Tax	XXX	XXX	.5145	-10.3	XXX	XXX	.4778	XXX	XXX	.4793	- 3.2
Total Sub./Rev. Pass.	XXX	XXX	$ 1.0839	+ 2.0	XXX	XXX	$ 1.0323	XXX	XXX	$1.0581	+ 0.1

METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT OPERATIONS

STATISTICS SUMMARY

	THIS MONTH				FISCAL YEAR TO DATE			12 MONTH MOVING TOTAL			
	Bus Statistics	Rail Statistics	Total System	% Δ This Mo/ This Month Last Year	Bus Statistics	Rail Statistics	Total System	Bus Statistics	Rail Statistics	Total System	% Δ This Mo./This Mo. Last Yr
WAGES:											
Basic Top Opr.	$ 7.83	$ 7.83	$ 7.83	XXX							
C.O.L.A.	$ 2.51	$ 2.51	$ 2.51	XXX							
Tot. Top. Opr.	$ 10.34	$ 10.34	$ 10.34	0.0							
Opr. Benefits	$ 2.36	$ 2.52	$ 2.37***	+10.2							
Tot. Opr./Opr. Ben.	$ 12.70	$ 12.86	$ 12.71	+ 1.8							
Number of Operators	1191	66	1259	- 2.6							
VEHICLES:											
Total Active Fleet	755	120	875	- 2.6							
A.M. Veh. Sch.	588	48	636	- 3.3							
P.M. Veh. Sch.	576	68	644	- 3.0							
Base Veh. Sch.	249	52	301	+ 2.0							
Sat. Veh. Sch.	217	20	237	- 4.8							
Sun. Veh. Sch.	147	14	161	+ 3.9							
ENERGY CONSUMPTION:											
Gallons of Fuel Con.	702,908	XXX	702,908	- 3.9	2,291,816	XXX	2,291,816	8,718,897	XXX	8,718,897	- 2.8
Avg. MI./Gallon	3.38	XXX	3.38	+ 2.4	3.17	XXX	3.17	3.30	XXX	3.30	- 0.9
Kilowatt-Hrs. Used	XXX	6,986,091	6,986,091	+16.4	XXX	22,749,923	22,749,923	XXX	84,775,423	84,775,423	+ 15.2
Avg. MI./Kilowatt-Hr.	XXX	.065	.065	+ 4.8	XXX	.061	.061	XXX	.062	.062	+ 8.8
ACCIDENTS:											
Tot. No. Accidents	50	XXX	50	-18.0	140	XXX	140	655	XXX	655	- 10.2
Tot. Accid./100,000 MI	2.10	XXX	2.10	-17.0	1.92	XXX	1.92	2.27	XXX	2.27	- 7.0
ROUTES:											
No. of Rts./Lines	140	2	142	+ 0.7							
MI. of Rts.	1826.83	16.1	1,842.93	- 1.1							
MI. of Directional St.	2134.25	XXX	2,134.25	- 2.1							
Track Miles	XXX	36.7	36.7	+ 5.5							

SPECIAL NOTES: * Based on Net Operating Expense.
** Average Fare based on Linked Passengers minus "Free Day" Linked Passengers of 220,000.
*** Weighted average based on relative number of operators.

Total linked and unlinked passengers for August were revised to 5,220,000 and 10,772,000 respectively. September FTD and 12-month totals reflect this revision.

DIVISION OF SERVICE PLANNING AND SCHEDULING
RESEARCH AND ANALYSIS BRANCH
11/11/83
JLB

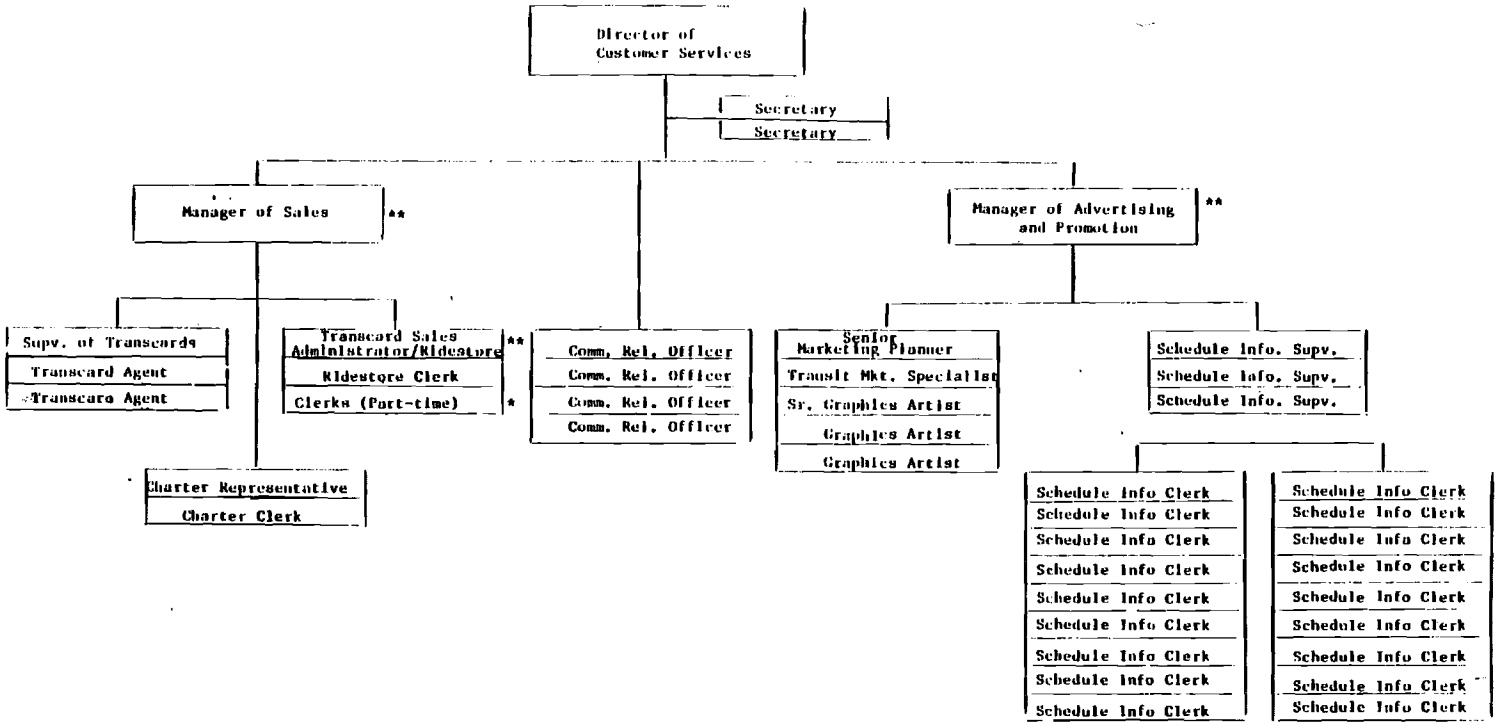
MARTA FARE SCHEDULE

BASE FARE - All regularly scheduled services in Fulton/DeKalb County area - including the Stadium Shuttle---	$ .60	
MONTHLY TRANSCARD - Unlimited travel, one calendar month all regular services - including the Stadium Shuttle---	21.00	
WEEKLY TRANSCARD - Unlimited travel, 7-day week all regular services - including the Stadium Shuttle---	5.00	
HALF-FARE - For Elderly & Handicapped Patrons (9 a.m. - 6 a.m.) Weekdays - all day Saturday, Sunday & Holidays---	.30	
OUT OF DISTRICT ROUTES		
#50-Farmers Market; #54-Forest Park, to Clayton County; #94-Northeast Industrial, to Gwinnett County - TransCards & Transfers Accepted as 60¢ credit toward full fare---	.90 + 5¢ for Transfer	
#201-Six Flags - NO Transfer - NO TransCard Usage---	1.25 Flat Fare	
(HALF-FARE for Elderly & Handicapped patrons 9 a.m. - 6 a.m. Weekdays - All Day Saturday, Sunday & Holidays)		
STADIUM SHUTTLE - Downtown to Stadium --- TransCards & Transfers Accepted	.60	
FALCON FLYER - Shopping Centers & Suburban Locations to Games: Lenox Square/Northlake/Perimeter/Abernathy - (Pre-purchased Tickets via Mail or RideStore) NO Transfers - NO TransCards---	4.50 Round Trip 2.25 One-Way	
E-BUS - Elderly Bus Services (connects Sr. Citizens Apartment Residences to Major Shopping Centers) Transfers Accepted---?	.60 One-Way	
L-BUS - Physically Handicapped-Lifts for Wheelchair Patrons--- (40¢ with valid Transfer or TransCard) ?	1.00 One-Way	
CHARTER SERVICE - First Five Hours or Less--- ($30.00 for each additional hour)	175.00	
One-Way Trips - Two Hours or Less---	115.00	
Eligible Non-Profit Groups or Organizations - Three Hours or Less---	115.00	
($30.00 for each additional hour)		

DATE ISSUED: July 7, 1982
Office of Assistant General
Manager/Planning & Public Affairs

DIVISION OF CUSTOMER SERVICES

20 Non-Represented Positions
25 Represented Positions
45 Total Positions



*Additional Positions
**Pending Classification

MARTA BOARD OF DIRECTORS

OFFICERS

Clay C. Long
Chairman

Amos Beasley, Jr.
Secretary

Malcolm S. Murray, Sr.
Vice Chairman

K.A. McMillion
Treasurer

Kenneth M. Gregor
General Manager

Amos Beasley, Jr.
(12/31/84)
City of Atlanta

John G. Glover, Jr.
(12/31/84)
Clayton County

*G.W. Hogan
State Properties Commission

R. Charles Loudermilk
(12/31/87)
City of Atlanta

K.A. McMillon
(12/31/87)
Gwinnett County

Malcolm S. Murray, Sr.
(12/31/86)
Dekalb County

Lyndon A. Wade
(12/31/85)
City of Atlanta

J. David Chesnut
(12/31/85)
Dekalb County

Blanche R. Henderson
(12/31/87)
Dekalb County

Clay C. Long
(12/31/84)
Fulton County

Joseph E. Lowery
(12/31/86)
Fulton County

*Thomas D. Moreland
Ga. DOT

Sue S. Trotter
(12/31/86)
City of Atlanta

*Serve as members of the MARTA Board while holding respective State Offices.

THURSDAY

MARTA RAIL SYSTEM

SAFETY AND EMERGENCY FEATURES

a. Features of Car
b. Features of Station Area
c. Features of Tunnel Area

Reporting of Emergency Conditions
Including Emergency Evacuation Steps

1. Identify yourself and offer assistance to the operator.

2. Advise the operator from which car you are calling.

3. If evacuation becomes necessary, advise the operator you are available to head up the front or bring up the rear.

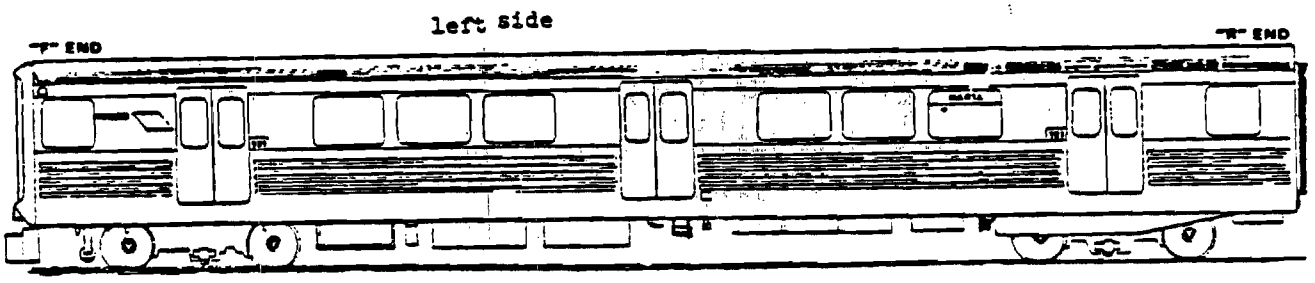
4. Keep the passengers calm; avoid a "panic" situation.

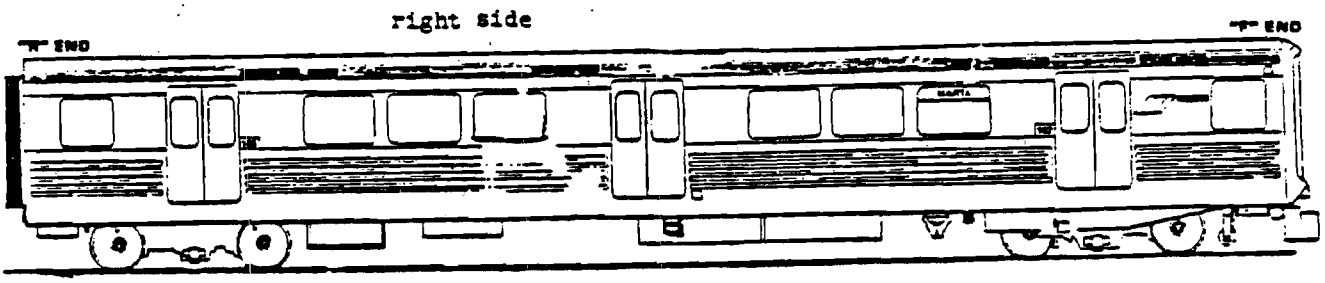
5. Reassure the passengers that help is on the way.

IDENTIFICATION: EXTERIOR EQUIPMENT

"A" TYPE, "B" TYPE, AND "C" TYPE
EXTERIOR EQUIPMENT ARRANGEMENT

LOCATION: THE CENTER DOOR HAS A HAND HOLD AND A STEP AT THE CENTER DOOR LOCATION. THEY ARE LOCATED AWAY FROM THE THIRD RAIL COLLECTOR SHOES AT EITHER END OF EACH CAR UNIT (BOTH SIDES).

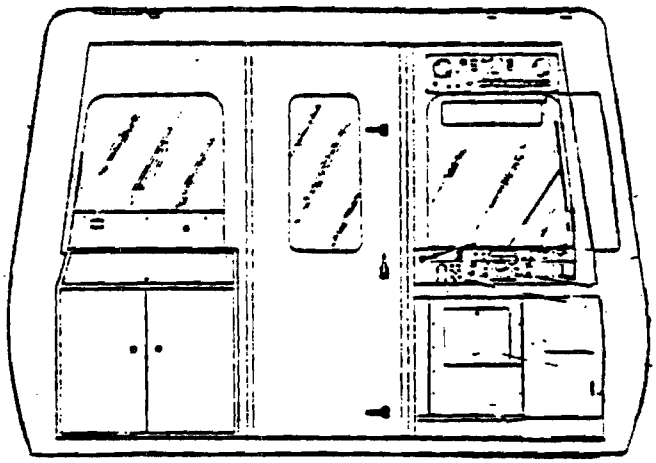


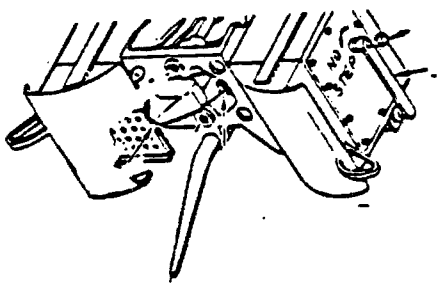


IDENTIFICATION: CAR COUPLER ASSEMBLY

LOCATION: A STEP ATTACHED TO THE EXTREME FRONT END OF THE COUPLER.

PURPOSE: USED FOR THE PURPOSE OF ENTERING OR LEAVING THE TRAIN FROM TRACK LEVEL.



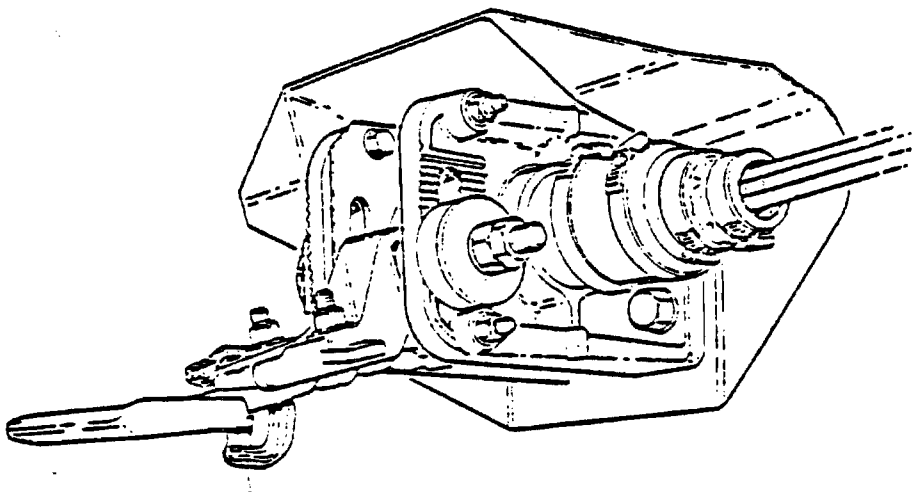


IDENTIFICATION: THIRD RAIL SHOE ASSEMBLY

LOCATION: THERE ARE FOUR SHOES MOUNTED ON EACH CAR, ONE ON EACH SIDE OF EACH TRUCK. WHEN ONLY ONE SHOE IS IN CONTACT WITH THE THIRD RAIL ALL FOUR SHOES ARE ENERGIZED.

PURPOSE: THE THIRD RAIL SHOE IS THE PRIMARY SOURCE TO COLLECT 500 TO 900 VOLTS DC FROM THE THIRD RAIL TO POWER THE ELECTRICALLY OPERATED COMPONENTS ON THE CAR.

COMMENTS: THE THIRD RAIL COLLECTOR SHOE IS CONSIDERED TO BE ENERGIZED AT ALL TIMES, AND IS NEVER TO BE USED AS A STEP.

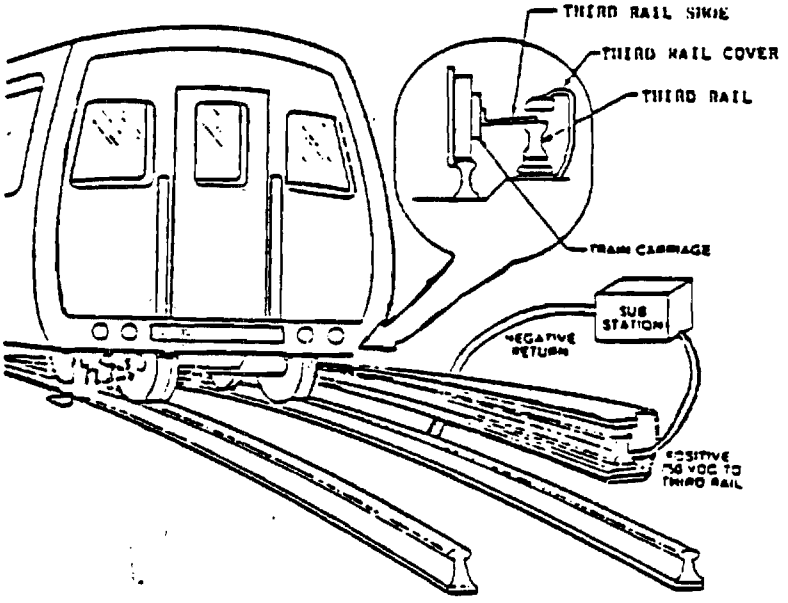


IDENTIFICATION: THIRD RAIL AND COVER

LOCATION: TRACTION POWER IS SUPPLIED FROM WAYSIDE SUBSTATIONS TO A CONTACT THIRD RAIL SYSTEM AT 750 VDC. NEGATIVE TRACTION CURRENT RETURN IS THROUGH THE RUNNING RAIL.

PURPOSE: TO SUPPLY 750 VDC TO POWER THE RAIL CARS.

COMMENTS: THE THIRD RAIL IS CONSIDERED ENERGIZED AT ALL TIMES, AND THE THIRD RAIL COVER SHALL NEVER BE USED AS A STEP OR SEAT.



IDENTIFICATION: PASSENGER INTERCOM STATION

LOCATION: THE INTERCOM IS LOCATED NEXT TO EACH CAB IN EVERY CAR.

PURPOSE: THE PRESS TO CALL OPERATOR ACCESS SWITCH ACTUATES INTERCOM WHEN SWITCH IS PRESSED AND RELEASED AND OPERATOR WILL BE SIGNALED BY A VISUAL FLASHING PASSENGER INTERCOM LIGHT AND ALARM.

IDENTIFICATION: LEFT SIDE CONTROL PANEL

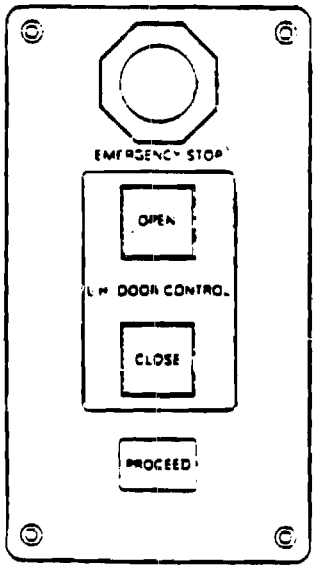
LOCATION: IN OPERATOR CAB ON LEFT SIDE OF THE CONTROL PANEL.

PURPOSE: THE EMERGENCY STOP SWITCH, WHEN PRESSED IN, CAUSES AN EMERGENCY APPLICATION OF PHEUMATIC BRAKES.

WHEN THE EMERGENCY STOP BUTTON IS DEPRESSED IT WILL CAUSE AN AUTOMATIC STOP OF THE TRAIN.

COMMENTS: IF THE ABOVE IS OBSERVED, PLEASE NOTIFY THE OPERATOR OF THE CONDITION AND OFFER ASSISTANCE TO RESTORE BUTTON TO NORMAL POSITION.

THE BUTTON MUST BE "PULLED OUT" TO RESTORE THE EMERGENCY STOP BUTTON TO THE NORMAL POSITION.

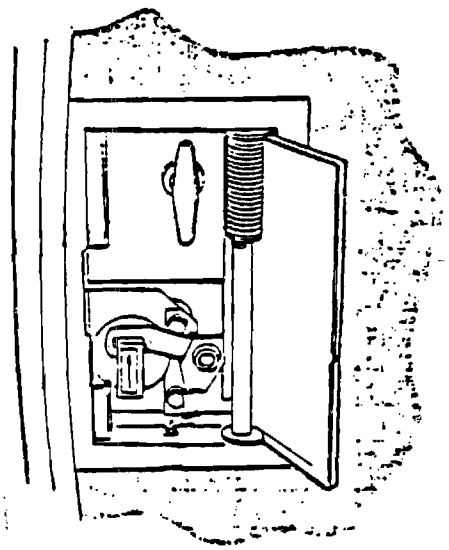


IDENTIFICATION: EMERGENCY DOOR RELEASE ACCESS PANEL

LOCATION: LOCATED AT EACH DOOR PANEL

PURPOSE: PULLING ON THIS HANDLE WILL RELEASE OVER-CENTER LOCK AND DOOR PANEL CAN BE PUSHED OPEN.

COMMENTS: THIS DOOR RELEASE HANDLE IS NOT TO BE ACTIVATED WITHOUT THE KNOWLEDGE OF THE TRAIN OPERATOR.



IDENTIFICATION: FIRE EXTINGUISHER LOCATIONS

LOCATION: TWO FIRE EXTINGUISHERS ARE LOCATED ON EACH CAR.

ONE UNIT IS ATTACHED TO EACH OPERATOR'S CAB DOOR (INSIDE OF DOOR).

ONE UNIT IS ATTACHED BETWEEN SEATS MIDWAY BETWEEN EACH CAR. THERE IS A "PICTURE" OF THE EXTINGUISHER AT THE SEAT LOCATION.

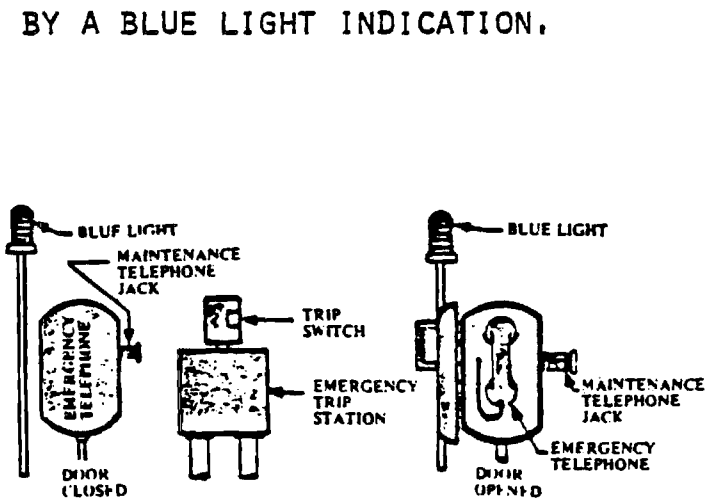
PURPOSE: TO BE USED IN CASE OF FIRE EMERGENCY.

IDENTIFICATION: EMERGENCY TRIP STATION (ETS)

LOCATION: THESE ETS'S ARE LOCATED AT EITHER END OF EACH PLATFORM AND APPROXIMATELY 600 FEET ALONG THE RIGHT-OF-WAY.

PURPOSE: EMERGENCY TRIP STATIONS (ETS'S) CAN BE USED TO DE-ENERGIZE THIRD RAIL POWER IN A SPECIFIC ZONE.

COMMENTS: THERE IS ALSO A TELEPHONE WITH A DIRECT LINE INTO CENTRAL CONTROL, AND THE PERSON DEPRESSING THE ETS SWITCH MUST USE THE TELEPHONE TO ADVISE CENTRAL CONTROL OF THEIR IDENTITY AND FOR WHAT PURPOSE. EMERGENCY TRIP STATION'S ARE IDENTIFIED BY A BLUE LIGHT INDICATION.



IDENTIFICATION:	RED TELEPHONE ON STATION PLATFORM
LOCATION:	THIS TELEPHONE IS LOCATED IN CLOSE PROXIMITY TO THE FIRE HOSE CABINET.
PURPOSE:	THE RED "FIRE EMERGENCY" TELEPHONE PROVIDES A DIRECT LINK TO CENTRAL CONTROL FACILITY. THIS TELEPHONE CAN BE USED FOR ANY EMERGENCY SITUATION.

IDENTIFICATION: BLUE TELEPHONE ON STATION PLATFORM

LOCATION: THIS TELEPHONE IS LOCATED IN CLOSE PROXIMITY TO THE FIRE HOSE CABINET.

PURPOSE: THE BLUE "MARTA POLICE" TELEPHONE PROVIDES A DIRECT LINK TO THE ZONE CENTER AND IS PRIMARILY USED FOR SOLICITING POLICE ASSISTANCE, IF NEEDED.

IDENTIFICATION: WHITE TELEPHONE ON CONCOURSE

LOCATION: THIS TELEPHONE IS LOCATED IN THE GENERAL AREA OF FAREGATES IN EACH STATION.

PURPOSE: THE WHITE "MARTA ASSISTANCE" TELEPHONE PROVIDES A DIRECT LINK TO THE ZONE CENTER. THIS TELEPHONE IS PRIMARILY USED FOR GENERAL INFORMATION REQUESTED BY PATRONS, BUT CAN ALSO BE USED FOR EMERGENCY PURPOSES IF NECESSARY.

IDENTIFICATION: CATWALK

LOCATION: THE CATWALKS ARE LOCATED INSIDE ALL TUNNEL AREAS.

PURPOSE: THEIR PRIMARY USE IS FOR EVACUATION PURPOSES DURING AN EMERGENCY, IF NECESSARY.

COMMENTS: DURING EVACUATION CONDITIONS, SPECIAL PRECAUTIONS MUST BE TAKEN SO AS NOT TO WALK INTO THE SWING DOWN FIRE HOSE CONNECTIONS.

SPECIAL CONDITIONS: THE CATWALK IS ONLY 30" WIDE AND IS NOT DESIGNED TO ACCOMMODATE WHEEL CHAIR PATRONS.

FIRE EMERGENCY

1. Emergency operating procedure for a fire on a train.

2. Train operator must immediately inform Central Control.

3. Train I.D. number, source of information, location of fire, direction and distance to the next station.

4. Proceed if possible to that next station to evacuate passengers, governed by Central Control.

5. Avoid panic to passengers by making clear, calm P.A. announcements and instructions.

6. Inform the passengers that the train has a problem and will be out of service at the next station, all passengers must leave the train.

7. Instruct the passengers to be aware that emergency personnel will be entering the station to assist you with the train.

8. Assure that all the passengers have departed. If practical, use the on board fire extinguisher on the fire area.

9. Emergency personnel will govern on their arrival. Inform Central Control should the emergency personnel request that the train be moved away from the platform.

FIRE EMERGENCY

1. Emergency uncoupling procedure for a fire on a train disabled between stations with four or more cars.

2. Train operator must immediately inform Central Control.

3. Train I.D. number, source of information, location of fire, location of disabled train, and distance to nearest station.

4. Advise Central Control that an attempt can be made to evacuate passengers from the smoke filled cars into the cars to be uncoupled, stating the possible direction of travel.

5. Avoid panic to passengers by making clear, calm P.A. announcements and instructions.

6. Inform the passengers that the train is disabled and it will be necessary to evacuate from the smoke filled cars into the cars to be uncoupled.

7. To avoid delay and confusion, be specific in the direction the passengers are told to WALK through the cars: To the front of the train towards the operator or to the rear of the train away from the operator.

8. If necessary to shut off the HVAC unit, key down and depress Auxiliary Off button, After three seconds, depress Auxiliary On button for the emergency lights.

9. Be sure that all the passengers have evacuated the affected car(s) before attempting to uncouple at the proper console of the good order cars.

10. Proceed with an attempt to uncouple with the normal uncoupling procedure.

11. Should the normal uncoupling procedure attempt fail, use the Electro Pneumatic Valves under the Tertiary Panel: V-3, V-4, V-2. Recharge brake pipe, place MCSS in Wash Mode and buff the cars. Depress Reverse Jog button to uncouple.

12. Change to the operating end of the good order cars and proceed to the next station, governed by Central Control. Be aware of possible emergency personnel on the right-of-way.

FIRE EMERGENCY

1. Emergency evacuation procedure for a fire on a train disabled between stations.

2. Train operator must immediately inform Central Control.

3. Train I.D. number, source of information, location of fire, location of disabled train, and distance to nearest station.

4. Advise Central Control that the passengers must be evacuated to the trackway or walkway, stating the safest possible direction of travel.

5. Before starting the evacuation, request Central Control to deenergize the third rail power. When in a tunnel area request the emergency fans to be energized.

6. Avoid panic to passengers by making clear, calm P.A. announcements and instructions.

7. Inform the passengers that the train is disabled and it will be necessary to evacuate the train on your instructions, and that emergency personnel are enroute.

8. To avoid delay and confusion, be specific to the passengers that the doors will open on one side of the train.

9. After leaving the train they must walk in a specific direction: To the front of the train towards the operator, or to the rear of the train away from the operator.

10. At-grade level the passengers may be enlisted to assist in the evacuation to the trackway.

11. On aerial structures the passengers will be instructed to step down to the metal walkway.

12. In subway and tunnel areas the passengers will be instructed to step down to the concrete walkway.

13. Be sure that all the passengers have evacuated the train before guiding them to a safe area, governed by Central Control.

FRIDAY

Transit Related Educational Programs

1. Northwestern University

Graduate Study and Research in "Transportation Systems"

a) Master of Science and Ph.D
Transportation Program Director
The Technology Institute
Department of Civil Engineering
Northwestern University
Evanston, Illinois 60201
312-492-5183

Related University Programs

a) Master of Science in Transportation
Academic Programs Office
The Transportation Center
Leverone Hall
Northwestern University
Evanston, Illinois 60201
312-492-5015

b) Master of Management in Transportation
Director of Admissions
Graduate School of Management
Leverone Hall
Northwestern University
Evanston, Illinois 60201
312-492-3308

2. University of California - Berkeley

Master in City Planning and Ph.D
Specialization: Transportation
Admissions Secretary
Department of City and Regional Planning
University of California - Berkeley
Berkeley, California 94720
415-642-1641 or 3256

3. University of Pennsylvania Transportation Program

a) Master of City Planning
Focuses on Urban transportation
City and Regional Planning Department
127 Fine Arts Building/CJ
University of Pennsylvania
Philadelphia, Pennsylvania 19104

b) Ph.D. in City Planning
Focuses on Urban Transportation
Chairman, Graduate Group in City Planning
Same address as above

Joint Degree Programs

a) Master of Business Administration and Master of Science in Engineering
Focuses on Transportation Management
Chairman, Civil and Urban Engineering Department
113 Towne Building/D3
University of Pennsylvania
Philadelphia, Pennsylvania 19104

b) Master of Science of City Planning and Master of Science Engineering
Focuses on Tranportation Engineering and Planning
Same address as above

c) Master of City Planning and Master of Arts in Regional Science
Focuses on Transportation and Theory of Methods of Regional Analysis
Chairman, City and Regional Planning Department
127 Fine Arts Building/CJ
University of Pennsylvania
Philadelphia, Pennsylvania 19104

d) Master of Business Administration and Juris Doctor
Focus on Transportation Management and Regulatory Law
Chairman, Wharton Transportation Program
130 McNeil Building/CR
University of Pennsylvania
Philadelphia, Pennsylvania 19104

5. Cornell University

a) Master in Regional Planning & Ph.D
Graduate Faculty Representative
Department of City and Regional Planning
200 West Sibley Hall
Cornell University
Ithaca, New York 14853

b) Master of Science, Master of Engineering, Ph.D.
Department of Environmental Engineering
School of Civil and Environmental Engineering
Cornell University
Ithaca, New York 14853

6. Morgan State University

Master of Science in Transportation
Office of Admission
School of Graduate Studies
Morgan State University
Baltimore, Maryland 21239
301-444-3185

7.
Georgia Institute of Technology

Master of City Planning and Ph.D.
Specialization: Transportation
Director
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, Georgia 30332
404-894-2350

8. University of North Carolina At Chapel Hill

Master in Regional Planning and Ph.D.
Specialization: Transportation
Department of City and Regional Planning
New East Building, 033A
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514
919-962-3983

Joint Degree

Master of Science (Civil Engineering) and Master of Regional Planning
Specialization: Transportation
Department of City and Regional Planning
New East Building, 033A
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514
919-962-3983

9. University of California at Irvine

Master of Science and Ph.D.
Specialization: Transportation Engineering
Dr. W.W. Recker
Civil Engineering Department
University of California, Irvine
Irvine, California 92714
714-856-6504

10. Massachusetts Institute of Technology

Master of City Planning and Ph.D.
Specialization: Transportation
Department of Urban Studies and Planning
M.I.T.
Cambridge, Massachusetts 02139

11. Managing Organizational Performance Workshop
Designed Learning Inc.
1009 Park Avenue
Plainfield, New Jersey 07060
201-754-5100
April 11, 12, & 13, 1984
October 24, 25, 26, 1984

12. Transit Operations Institute
Georgia Institute of Technology/MARTA
Graduate City Planning Program
Georgia Institute of Technology
Atlanta, Georgia 30332

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