

PERSONS AND ORGANIZATIONS VISITED

During the course of this study, visits were made to each operating transit agency and to other organizations with an interest in the design and operation of rail rapid transit systems. The following is a list of the persons interviewed and their organizational affiliation. Individual recognition of their contributions to the study is not possible, except in a few cases where their observations are cited directly in the report. The OTA staff and the Urban Mass Transit Advisory Panel are grateful for the cooperation of these people and for the generous gift of their time and interest. Persons interviewed by the OTA staff are listed on the left. Those interviewed by the technical consultants, Battelle Columbus Laboratories, are listed on the right.

OPERATING TRANSIT AGENCIES

Boston—Massachusetts Bay Transportation Authority (MBTA)

Jason B. Baker Supt., Equipment Engineering	Larry Bulongie Signals and Communications
Francis X. Capelle Deputy Supt., Signals and Communications	James A. Burns General Supt., Equipment Maintenance
Joseph P. Dyer General Supt., Power and Signals	Raymond M. Caddigan Supt. of Rail Lines
William Malone Safety Department	Francis X. Capelle Deputy Supt., Signals and Communications
David Marcham Transportation Department	Frank Crowley Deputy Supt., Maintenance
	Col. Warren J. Higgins Director of Operations
	Larry Maddalena Electrical Supervisor

Chicago-Chicago Transit Authority (CTA)

Joseph Bensen Librarian	Kendrick Bisset Supervisor, Signal Design .
James Blaa Manager of Transportation	Paul Cleaver Supt., Signals and Communications
Thomas Boyle Director of Safety	Arthur Sandberg Manager, Engineering
Albert Brandt Signal Maintainer, Lake-Harlem Shops	James Stewart Manager, Equipment Engineering
Daphne Christensen Science Advisor to the Chairman of the Board	Ralph Tracy Director of Transportation Services

Paul C. Cleaver
Supt., Signals and Communications

Adel El Dib
Management Systems

Judy Genneson
Librarian

Edward Henry
Public Safety

Harold Hirsch
Manager of Operations Planning

Paul Kole
General Manager, Finance

George Krambles
General Manager, Operations

Herbert Lowenstein
District Supervisor (North)

Katherine Moriarty
Supervisor, Collection Agents

Evan C. Olmstead
Manager of Maintenance

A. R. Sandberg
Manager of Engineering

Theodore Szewc
Supervisor, Signals Maintenance

Ralph Tracy
Director of Transportation Services

Joanne Vlecides
Development Planning

Thomas Wolgemuth
Director, Plant Maintenance

Chicago—Illinois Department of Transportation

B. G. Cunningham
Former Assistant Secretary of
Transportation (Illinois DOT)

Cleveland—Cleveland Transit System (CTS)

Elmer Corlett
Director of Personnel

Bernard Hamper
Employment Supervisor

Leonard Kraynik
Chief Research Analyst

Michael McKenna
Supt., Power and Plant

Philip Rockwood
Manager of Maintenance

Myron Silsby
Supt. of Rapid Transit

Bernard Wilchek
Supervisor of Management Development,
Training and Safety

Dear Williamson
Manager of Operations

Donald Yuratovac
Research Specialist, Research and Planning

New York—New York City Transit Authority (NYCTA)

Charles Kalkhof
Assistant General Superintendent,
Maintenance of Way

William O'Neill
Asst. Supervisor of Signals

Louis Alessi
Assistant Supervisor,
Car Maintenance

Frank T. Berry
Executive Officer, Operations
and Maintenance

Joseph Calderone

Irwin Cohen

Frank De Maria
Supt. of Rapid Transit

Seymour Dornfeld
Division Engineer, Signals and
Communications

Donald Gill
Chief Industrial Engineer

Charles Kalkhof
Assistant General Superintendent,
Maintenance of Way

Harold J. McLaughlin
Assistant General Supt., Rapid
Transit Transportation

Dennis Newman
Deputy Subdivision Engineer,
Maintenance of Way

Jack Rogg
Supt. of Engineering and Production
Control

Daniel T. Scannell
Senior Executive Officer, Operations
Management

Bart Sheehan
Railroad Signal Specialist,
Maintenance of Way

Ludwig Stanitsch
Senior Transit Management Analyst

Thomas Sullivan
Supt., Rapid Transit

Philadelphia, Camden—Port Authority Transit Corporation (PATCO)

David L. Andrus, Jr.
Supervisor of Traffic and Planning

Howard C. Conings
Safety and Insurance Supervisor

Robert B. Johnston
General Manager

Robert S. Korach
Assistant General Manager and Supt. of
Operations

John A. Lane
Administrative Assistant to the General
Manager

John J. McBride
Captain of PATCO Police

Herbert McCreary
Statistician

J. William Vigrass
Supt. of Equipment

James F. Elder
Supt. of Operations

Joe Fiori
General Foreman, Signals and Communications

Robert B. Johnston
General Manager

Robert S. Korach
Assistant General Manager and
Supt. of Operations

J. William Vigrass
Supt. of Equipment

D. R. Wolfe
Supt. of Way and Power

Clay Yost
Equipment Engineer

PATCO Consultants

Gibbs & Hill
Jack R. Shepard
Chief Systems Engineer (Ret.)

San Francisco—Bay Area Rapid Transit (BART)

Malcolm Barrett
General Counsel

Ward D. Belding, Jr.
Senior Economic Analyst

Ray Carroll
Director of Maintenance

Krishna Hari
Train Control Systems Engineer

George Anas
William Briner
Supt. of Line Operations

Ray Carroll
Director of Maintenance

Marvin Denowitz
Manager of Quality Control

Krishna Hari
Train Control Systems Engineer

Fred Harmon
Transportation Division

William F. Hein
Director of Planning

Mary-Lou Mulhern
Librarian

Eugene P. Nunes
Safety Supervisor

Philip O. Ormsbee
Assistant to General Manager

William M. Reedy
Former Member, BART Board

William J. Rhine
Director of Engineers

Ronald E. Rypinski
Supervisor of Maintenance Planning

George M. Silliman
Former Member, BART Board

BART Consultants

Hewlett-Packard
David Cochran
Leonard Cutler

Lawrence Berkeley Laboratory
Don M. Evans
D. Theodore Scalise

Roy W. Harris, TRW
Manager, BART Safety Availability Project

Clarence Lovell
Member, Special Panel, Public Utilities
and Corporations Committee, California
Senate

Bernard M. Oliver
Member, Special Panel, Public Utilities
and Corporations Committee, California
Senate

William Wattenburg
Independent Consultant

San Francisco—State of California

Alfred E. Alquist
Chairman, Public Utilities and
Corporations Committee,
California Senate

William F. Hein
Director of Planning

Mary-Lou Mulhern
Librarian

William J. Rhine
Director of Engineering

R. Somerton
Training Supervisor

BART Consultants

Parsons-Brinckerhoff-Tudor-Bechtel
Walter Quintin of the Bechtel Corp.
TRW

Hal Buchanan
Roy Harris, Project Manager
Everett Welker

James Cooney
Office of the Legislative Analyst

Wayne Keithley
Office of the Legislative Analyst

James R. Mills
Member, Public Utilities and
Corporations Committee,
California Senate

A. Alan Post
Legislative Analyst

San Francisco—California Public Utilities Commission

James K. Gibson
Director, Transportation Division

Leo L. Lee
Senior Electrical Engineer

William L. Oliver
Transportation Division

Herman W. Privette
Senior Transportation Supervisor

Theodore E. Rogers
Chief, Railroad Operations and
Safety Branch

In addition to contacts with the preceding people and organizations who are involved in operating transit agencies, OTA technical consultants from Battelle Columbus Laboratories interviewed the following persons.

AGENCIES IN PLANNING OR CONSTRUCTION ACTIVITY

Atlanta—Metropolitan Atlanta Rapid Transit Authority (MARTA)

Al Locke, System Safety Engineer
John J. Tucker, Equipment Design Manager
Ernest Young, Equipment Design Engineer

Consultants

Parsons-Brinckerhoff-Tudor-Bechtel
Dale H. Fencken, Supervising Engineer, ATC

Baltimore—Mass Transit Administration (Maryland)

Walter J. Addison, Administrator
Carl Buhlman, Manager, Equipment and Equipment Systems
Frank W. Hearne, Director, Rapid Transit Development Division
Bernard Walker, Senior Electrical Engineer

Consultants

Daniel, Mann, Johnson, and Mendenhall/Kaiser Engineers
P. Morris Burgess, Chief Systems Engineer
David Hammond, Project Manager
Lewis Sanders, Senior Systems Engineer

Buffalo—Niagara Frontier Transportation Authority (NFTA)

Kenneth Knight, Manager of Metro Construction
Eugene Lepp, Manager of Systems

Denver—Regional Transit District (RTD)

Dr. J. Edward Anderson, Advisor
George Billman, Manager, Technology Assessment
Aubrey J. Butts, System Design
Carlos DeMoraes, Assistant Executive Director, Development
R. J. Farrell, Command and Control Specialist
Ralph Jackson, Director of Planning
Paul Newcomb, Director, System Design
John Simpson, Executive Director
A. J. Weaver, Subsystem Requirements
W. Wild

Consultants

Systems Management Contractor (TRW Systems et al.)
E. Bagerstos, Reliability/Safety
R. K. Boyd, Assistant Program Manager, Controls
A. F. Ems, Reliability/Safety
Robert Johnson/Simulation
Herman Wells, Controls

Miami—Metropolitan Dade County Transit Authority

E. Randolph Preston, Asst. Coordinator for Transportation Development

Consultants

Kaiser Engineers
James Allis
Ralph Mason
Eugene Stann, Project Manager

Minneapolis-St. Paul—Twin Cities Area Metropolitan Transit Commission

Camille Andre, Executive Director
John Jamieson, Director of Transit Development
Douglas Kelm, Chairman, Metropolitan Transit Commission
William Marshall, Systems Engineer
Robert Pearson, Project Manager, Fixed-Guideway Systems

Consultants

De Leuw Cather
Frank Smith, Small Vehicle Study

Others

Dr. J. Edward Anderson, University of Minnesota
J. Kiedrowski, Staff Member, Minnesota Senate Metropolitan Urban
Affairs Committee

Pittsburgh—Port Authority of Allegheny County (PAAC)

John Mauro, Executive Director
James Maloney, Acting Manager, Early Action Program
Robert Sedlock, Systems Technology

Consultants

Kaiser Engineers
Thomas R. Gibson, Systems Engineering
Zoltan Stacho, Project Manager

Washington, D.C.—Washington Metropolitan Area Transit Authority (WMATA)

C. David Allen, Systems Maintenance Engineer
Howard W. Lyon
David Q. Gaul, Assistant Director, Office of Equipment Design
Warren Quenstedt, Deputy General Manager
William Randolph
Ralph Sheldon, Train Control Engineer

Consultants

Gibbs and Hill
Joseph Smith, Senior Transportation Engineer
Jack Shepard, Chief Systems Engineer (Retired)

AUTOMATED AIRPORT SYSTEMS

Dallas-Fort Worth Airport—Dallas-Fort Worth Regional Airport Board (AIRTRANS)

Dennis Elliott, Manager of Engineering
Dalton Leftwitch, Operations Supervisor, AIRTRANS
David Ochsner, Manager, AIRTRANS
David Slaboda, Maintenance Supervisor, AIRTRANS

Supplier

LTV
Richard Condrey, Manager, Ground Transportation
Austin Corbin, Project Manager
John Loutrel, Operations Research

Seattle-Tacoma International Airport—Port of Seattle (Sea-Tac)

Arthur Krause, Airport Maintenance Superintendent
Eugene Sagar, Operations Manager, Port of Seattle
Don Shay, Director of Aviation, Port of Seattle

Consultants

The Richardson Associates
Harry Linden, Assistant Administrative Director

Supplier

Westinghouse Electric Company
Joseph Borkowski, Maintenance Manager

SUPPLIERS

General Railway Signal Corp. (GRS), Rochester, N.Y.

Dr. John Freehafer, Manager of Advanced Engineering
Arthur Gebhardt, Vice President, Marketing
Mark Sluis, Vice President, Engineering

Westinghouse Air Brake Company (WABCO), Union Switch and Signal Division,
Swissvale, Pa.

Homer Hathaway, Senior Systems Consultant

Westinghouse Electric Company (WELCO) Transportation Division, Pittsburgh, Pa.

Philip Gillespie, Manager of Market Development

James H. King, Reliability Engineer

Dr. Robert Perry, Manager, Train Controls and Vehicle System Engineering

INSTITUTIONS

Amalgamated Transit Union, Washington, D.C.

Walter Bierwagen, Member. General Executive Board and Director of
Public Affairs

Earle Putnam, General Counsel

American Public Transit Association (APTA), Washington, D.C.

Robert Coultas, Deputy Executive Director

Jack Hargett, Legislative Liaison

B. R. Stokes, Executive Director

FEDERAL AGENCIES

Transportation Systems Center (TSC), Cambridge, Mass.

Robert Casey, Systems Analyst

Harry Hill, Man-Systems Technology

Robert Pawlak, Project Manager, ATC Program

Chan Watt, Systems Safety/Reliability/Maintainability

Urban Mass Transportation Administration (UMTA), Washington, D.C.

Steven Barsony, Acting Director, Morgantown Division, Office of R&D

Edward J. Boyle, Manager, Safety Division, Office of Transit Management

Ray Brunson, Systems Development Branch, Office of R&D

Vincent DeMarco, Systems Development Branch, Office of R&D

Duncan MacKinnon, Chief, Advanced Development Branch, Office of R&D

Paul Spencer, Staff Engineer, Rail Branch, Office of R&D

Federal Railroad Administration (FRA), Washington, D.C.

C. M. Bishop, Chief, Signals Branch, Standards and Procedures Division

Rolf Mowatt-Laarsen, Chief, Standards and Procedures Division, Bureau of Safety

William Paxton, Chief, Maintenance of Way Branch, Standards and Procedures Division

National Transportation Safety Board (NTSB), Washington, D.C.

J. Emerson Harris

Robert Jewell

Thomas Styles, Chief, Railroad Safety Division