

# Transportation Energy Activities of the U. S. Department of Transportation:

a technical assistance  
directory of programs,  
projects, contacts &  
conferences



Compiled by  
Technology Sharing Program  
Office of the Secretary

December 1979

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TRANSPORTATION ENERGY TECHNICAL ASSISTANCE,  
RESEARCH AND PLANNING ACTIVITIES  
OF THE U.S. DEPARTMENT OF TRANSPORTATION

This report provides a summary of current DOT sponsored energy-related research, technical assistance, planning activities and information sources. In addition to work done explicitly on this topic, much relevant information is contained in materials on the topics of Transportation System Management, transit performance, staggered work hours, priority techniques for high-occupancy vehicles and ridesharing.

Most of the programs described here are efforts of the U.S. Department of Transportation. A selected number of innovative State, regional and local programs have also been included.

This reference document has been compiled by the Technology Sharing Program in the Office of Intergovernmental Affairs, with the cooperation of the Federal Highway Administration, the Urban Mass Transportation Administration, the National Highway Traffic Safety Administration, the Federal Railroad Administration, and the Research and Special Programs Administration of the U.S. Department of Transportation.

This report will be continually updated as programs change. It is intended as a working paper and your additions, corrections and updates are most welcome. Please direct comments to:

Al Linhares, Chief  
Technology Sharing Program  
Office of the Secretary  
Room 10407  
400 7th Street, S.W.  
Washington, D.C. 20590  
(202) 426-4208

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I. DIRECT ASSISTANCE

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I. DIRECT ASSISTANCE

o The field staffs of the Department's Federal Highway Administration (FHWA) and Urban Mass Transportation Administration (UMTA) provide a major resource for State and local users to draw on. These staffs administer various funding programs and are knowledgeable about current planning and research activities. In addition, the Secretary of Transportation has a Regional Representative in each standard Federal region. The Regional Representatives can respond to inquiries that are multi-agency in nature.

A list of the Regional Representatives of the Secretary of Transportation, Regional Directors and Administrators of UMTA, NHTSA, and FHWA, and State and local ridesharing agencies follows:

DOT REGIONAL REPRESENTATIVES

<u>Region I</u> CT, ME, MA, NH, RI, VT	George McCarthy (617) 494-2709 DOT Regional Representative Transportation Systems Center 55 Broadway Cambridge, MA 02142
<u>Region II</u> NY, NJ, PR, VI	Hank McManus (212) 264-2672 DOT Regional Representative 26 Federal Plaza, Room 2339 New York, NY 10007
<u>Region III</u> MD, PA, VA, WV, DC, DE	Sally Hill Cooper (215) 597-9430 DOT Regional Representative 434 Walnut Street, Suite 1000 Philadelphia, PA 19106
<u>Region IV</u> KY, MS, NC, SC, TN, AL, GA	Thomas H. Lewis, Jr. (404) 881-3738 DOT Regional Representative 1720 Peachtree Road, N.W. Suite 515 Atlanta, GA 30309

<u>Region V</u> IL, IN, MN, MI, OH, WI	Doug Kelm (312) 353-4000 DOT Regional Representative 300 S. Wacker Drive, Room 700 Chicago, IL 60606
<u>Region VI</u> AR, LA, NM, OK, TX	Marvin Simpson (817) 334-2725 DOT Regional Representative 7-A-29 Federal Building 819 Taylor Street Fort Worth, TX 76102
<u>Region VII</u> IA, KS, MO, NE	Calvin C. Berge (816) 374-5801 DOT Regional Representatives 601 E. 12th Street, Room 634 Kansas City, MO 64106
<u>Region VIII</u> CO, MT, ND, SD, UT, WY	(vacant) (303) 837-5496 DOT Regional Representatives Prudential Plaza, Suite 1822 1050 17th Street Denver, CO 80202
<u>Region IX</u> AZ, CA, HI, NV, GU, AS	Norman Emerson (415) 556-5961 DOT Regional Representative 2 Embarcadero Center, Suite 610 San Francisco, CA 94111
<u>Region X</u> AK, ID, OR, WA	Mark Kelly (206) 442-0590 DOT Regional Representative 3112 Federal Building 915 Second Avenue Seattle, WA 98174

REGIONAL AND DIVISION ADMINISTRATORS  
OF THE  
FEDERAL HIGHWAY ADMINISTRATION

<u>Region I</u> CT, ME, MA, NH, NJ, NY, RI, VT, PR, VI	Robert E. Kirby, Regional Administrator Leo W. O'Brien Federal Building, Room 729 Clinton Avenue and N. Pearl Street Albany, NY 12207	(518) 472-6476
Connecticut	Donato J. Altobelli Division Administrator 990 Wethersfield Avenue Hartford, CT 06114	(203) 244-2410
Maine	J. J. Barakos Division Administrator 40 Western Avenue Augusta, ME 04330	(207) 622-6171
Massachusetts	Norman J. Van Ness Division Administrator 100 Summer Street Boston, MA 02110	(617) 223-2879
New Hampshire	F. T. Comstock, Jr. Division Administrator 55 Pleasant Street Concord, NH 03301	(603) 224-3385
New Jersey	John J. Kessler, Jr. Division Administrator 25 Scotch Road Trenton, NJ 08626	(609) 989-2288
New York	Victor E. Taylor Division Administrator Leo W. O'Brien Federal Building Clinton Avenue and N. Pearl Street Albany, NY 12207	(518) 472-3616
Rhode Island	Gordon G. Hoxie Division Administrator Exchange Terrace, Suite 250 Providence, RI 02903	(401) 528-4541



Vermont	David B. Kelley Division Administrator P.O. Box 568 Montpelier, VT 05602	(802) 223-5294
Puerto Rico	Francis Geiser, Jr. Division Administrator Carlos Chardon Street Hato Rey, PR 00918	(809) 759-7145
Virgin Islands	William C. Brewer Territorial Representative Veterans Drive St. Thomas, VI 00801	(9-1-809) 774-7002
**/ <u>Region III</u> DE, DC, MD, PA, VA, WV	W. H. White, Regional Administrator George H. Fallon Federal Office Building 31 Hopkins Plaza, Room 1633 Baltimore, MD 21201	(301) 962-2361
Delaware	J. F. Sullivan Division Administrator Federal Office Building, 2nd Floor 300 South New Street P.O. Box 517 Dover, DE 19901	(302) 678-4860
District of Columbia	Kenneth L. Bellamy Division Administrator 666 11th Street, N.W., Room 1000 Washington, D.C. 20001	(202) 724-3379
Maryland	Emil Elinsky Division Administrator 711 West 40th Street Baltimore, MD 21211	(301) 962-4440
Pennsylvania	Donald E. Hammer Division Administrator 228 Walnut Street P.O. Box 1086 Harrisburg, PA 17108	(717) 782-2222
Virginia	P. F. Chamberlain Division Administrator P.O. Box 10045 400 N. 8th Street, 10th Floor Richmond, VA 23240	(804) 782-2371

\*\*/ There is no FHWA Region II. FHWA Region I conforms to standard Regions I & II.

West Virginia	Merrill W. Nelson Division Administrator 500 Quarrier Street Charleston, WV 25301	(304) 343-6181 Ext. 203
<u>Region IV</u> AL, FL, GA, KY, MS, NC, SC, TN	James D. Lacy, Regional Administrator 1720 Peachtree Road, N.W. Suite 200 Atlanta, GA 30309	(404) 881-4078
Alabama	Richard B. Gillette, III Division Administrator 441 High Street Montgomery, AL 36104	(205) 832-7370
Florida	P. E. Carpenter Division Administrator 223 W. College Avenue P.O. Box 1079 Tallahassee, FL 32301	(904) 224-8111
Georgia	Herschel Bryant Division Administrator 1422 W. Peachtree Street, Suite 700 Atlanta, GA 30309	(404) 881-4751
Kentucky	Robert E. Johnson Division Administrator P.O. Box 536, 330 N. Broadway John C. Watts Federal Building Frankfort, KY 40602	(502) 227-7321
Mississippi	Emery L. Shaw Division Administrator 666 North Street, Suite 105 Jackson, MS 39202	(601) 969-4215
North Carolina	Ronald E. Heinz Division Administrator 310 NewBern Avenue P.O. Box 26806 Raleigh, NC 27611	(919) 755-4346
South Carolina	Bobby G. Cloyd Division Administrator 2001 Assembly Street, Suite 203 Columbia, SC 29201	(803) 765-5411
Tennessee	Edward G. Oakley Division Administrator 801 Broadway, Room A-926 Nashville, TN 37203	(615) 251-5394

Region V  
IL, IN, MI,  
MN, OH, WI

Donald E. Trull, Regional Administrator  
18209 Dixie Highway  
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3085 East Stevenson Drive  
Springfield, IL 62703

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Division Administrator  
575 N. Pennsylvania Street, Room 254  
Indianapolis, IN 46204

Michigan David A. Merchant (517) 372-1910  
Division Administrator  
315 W. Allegan Street, Room 211  
P.O. Box 10147  
Lansing, MI 48901

Minnesota E. Dean Carlson (612) 725-7001  
Division Administrator  
Seventh & Robert Streets, Suite 490  
St. Paul, MN 55101

Ohio John W. McBee (614) 469-6896  
Division Administrator  
200 W. High Street  
P.O. Box 15008  
Columbus, OH 43215

Wisconsin Herbert R. Teets (608) 252-5395  
Division Administrator  
4502 Vernon Boulevard  
P.O. Box 5428  
Madison, WI 53705

Region VI  
AR, LA, NM,  
OK, TX

Wesley S. Mendenhall, Jr., Regional Administrator  
819 Taylor Street  
Ft. Worth, TX 76102 (817) 334-3221

Arkansas Charles F. McMillen (501) 378-5625  
Division Administrator  
700 West Capitol Avenue  
Little Rock, AR 72201

Louisiana	James N. McDonald Division Administrator 750 Florida Street, Room 239 Baton Rouge, LA 70801	(504)	389-0244
New Mexico	John F. MacAllister Division Administrator Room 117 U.S. Court House Santa Fe, NM 87501	(505)	988-1255
Oklahoma	Gordon E. Penney Division Administrator 200 N.W. Fifth Street, Room 454 Oklahoma City, OK 73103	(405)	231-4624
Texas	John J. Conrado Division Administrator 300 East 8th Street, Room 826 Austin, TX 78701	(512)	397-5511
<u>Region VII</u> IA, KS, MO, NE	Calvin C. Berge, Regional Administrator (acting) P.O. Box 19715 Kansas City, MO 64141	(816)	926-7565
Iowa	Hubert A. Willard Division Administrator 105 6th Street P.O. Box 627 Ames, IA 50010	(515)	233-1664
Kansas	Robert W. Morrissey Division Administrator 1263 Topeka Avenue Topeka, KS 66612	(913)	234-8661
Missouri	Rudolf M. Lemke Division Administrator 209 Adams Street P.O. Box 148 Jefferson City, MO 65101	(314)	636-7104
Nebraska	Raymond H. Hogrefe Division Administrator 100 Continental Mall North, Room 487 Lincoln, NE 68508	(402)	471-5000

<u>Region VIII</u> CO, MT, ND, SD, UT, WY	Daniel Watt, Regional Administrator Denver Federal Center, Building 40 P.O. Box 25246 Denver, CO 80225	(303) 234-4051
Colorado	A.J. Siccardi Division Administrator 10488 W. 6th Place Denver, CO 80215	(303) 234-4425
Montana	Harold N. Stewart Division Administrator 301 S. Park, Drawer 10056 Helena, MT 59601	(406) 449-5306
North Dakota	George H. Seaworth Division Administrator Federal Building P.O. Box 1755 Bismarck, ND 58501	(701) 255-4011
South Dakota	William A. Weseman Division Administrator P.O. Box 700 Pierre, SD 57501	(605) 224-7351
Utah	George W. Bohn Division Administrator 125 South State Street P.O. Box 11563 Salt Lake City, UT 84147	(801) 524-5141
Wyoming	Fred Cooney Division Administrator 2120 Capitol Street Cheyenne, WY 82001	(307) 778-2220 Ext. 2101
<u>Region IX</u> AZ, CA, HI, AS, GU, NV	Frank E. Hawley, Regional Administrator 2 Embarcadero Center, Suite 520 San Francisco, CA 94111	(415) 556-3951
Arizona	Thomas O. Willett Division Administrator 3500 N. Central Avenue, Suite 201 Phoenix, AZ 85012	(602) 261-6675
California	Omar L. Homme Division Administrator 801 I Street, Room 264 P.O. Box 1915 Sacramento, CA 95809	(916) 448-2428

Hawaii                      Ralph T. Segawa                      (808) 546-5150  
Division Administrator  
300 Ala Moana Boulevard, Room 4119  
Honolulu, HI 96850

Nevada                      Albert E. Stone, Jr.                      (702) 784-5911  
Division Administrator  
1050 E. Williams Street  
Carson City, NV 89701

Region X  
AK, ID, OR,  
WA                      Louis E. Lybecker, Regional Administrator  
Mohawk Building, Room 412  
222 S.W. Morrison Street  
Portland, OR 97204                      (503) 423-2065

Alaska                      Gene A. Hanna                      (907) 586-7418  
Division Administrator  
708 West 9th Street  
P.O. Box 1648  
Juneau, AK 99802

Idaho                      Richard C. Cowdery                      (208) 384-1843  
Division Administrator  
3010 W State Street  
Boise, ID 83703

Oregon                      Glenn L. Green                      (503) 378-3835  
Division Administrator  
530 Center Street, N.E., Suite 100  
Salem, OR 97301

Washington                      Paul C. Gregson                      (206) 753-9480  
Division Administrator  
711 South Capitol Way  
Olympia, WA 98507

Region XIX  
(vacant), Regional Engineer, FHWA  
Regional Office, Region 19, Drawer "J"  
Balboa Heights, Canal Zone  
FTS: 9-0\*-52-5415

UMTA REGIONAL DIRECTORS

Region I Peter N. Stowell, Regional Director  
Transportation Systems Center  
Kendall Square, 55 Broadway  
Cambridge, MA 02142  
Tel: (617) 494-2055

Region II Hiram Walker, Regional Director  
Suite 14-130  
26 Federal Plaza  
New York, NY 10007  
Tel: (212) 264-8162

Region III Franz K. Gimmler, Regional Director  
Suite 1010, 434 Walnut Street  
Philadelphia, PA 19106  
Tel: (215) 597-8098

Region IV Carl Richardson, Regional Director (acting)  
Suite 400, 1720 Peachtree Road, N.W.  
Atlanta, GA 30309  
Tel: (404) 881-3948

Region V Theodore Weigle, Regional Director  
Suite 1740, 300 S. Wacker Drive  
Chicago, IL 60606  
Tel: (312) 353-2789

Region VI Glen Ford, Regional Director  
Suite 9A32, 819 Taylor Street  
Fort Worth, TX 76102  
Tel: (817) 334-3787

Region VII Lee Waddleton, Regional Director  
Suite 100, 6301 Rock Hill Road  
Kansas City, MO 64131  
Tel: (816) 926-5053

Region VIII Lou Mraz, Regional Director  
Suite 1822, Prudential Plaza  
1050 17th Street  
Denver, CO 80265  
Tel: (303) 837-3242

Region IX Dee Jacobs, Regional Director  
Suite 620, Two Embarcadero Center  
San Francisco, CA 94111  
Tel: (415) 556-2884

Region X Aubrey Davis, Regional Director  
Suite 3142, Federal Building  
915 Second Avenue  
Seattle, WA 98174  
Tel: (206) 442-4210

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION  
Regional Administrators

Region I  
CT, ME, MA,  
NH, RI, VT

James F. Williamson, Regional Administrator  
Transportation Systems Center  
Kendall Square - Code 903  
Cambridge, Massachusetts 02142  
Tel: (617) 494-2680

Region II  
NY, NJ, PR,  
VI

John F. Magee, Regional Administrator  
222 Mamaroneck Avenue, Suite 204  
White Plains, New York 10605  
Tel: FTS 656-9311

Region III  
DE, DC, MD,  
PA, VA, WV

Frank D. Altobelli, Regional Administrator  
793 Elkridge Landing Road, Room D-203  
Linthicum, Maryland 21090  
Tel: (301) 796-5117

Region IV  
AL, FL, GA,  
KY, MS, NC,  
SC, TN

Stanley M. Keesling, Regional Administrator  
Suite 501  
1720 Peachtree Road, N.W.  
Atlanta, GA 30309  
Tel: (404) 881-4537

Region V  
IL, IN, MI,  
MN, OH, WI

Gordon Lindquist, Regional Administrator  
Suite 214, Executive Plaza  
1010 Dixie Highway  
Chicago Heights, IL 60411  
Tel: (312) 756-1950

Region VI  
AR, LA, NM,  
OK, TX

E. Robert Anderson, Regional Administrator  
819 Taylor Street  
Fort Worth, TX 76102  
Tel: (817) 334-3653

Region VII  
IA, NE, MO,  
KS

Everett L. McBride, Regional Administrator  
P.O. Box 19515  
Kansas City, MO 64141  
Tel: (816) 926-7887

Region VIII  
CO, MT, ND,  
SD, UT, WY

Robert C. O'Connell, Regional Administrator  
330 South Garrison Street  
Lakewood, Colorado 80226  
Tel: (303) 234-3253

Region IX  
AZ, CA, HI,  
NV, AS, GU

Calvin Burkhardt, Regional Administrator  
Two Embarcadero Center, Suite 610  
San Francisco, California 94111  
Tel: (415) 556-6415

Region X  
AK, WA, OR,  
ID

William L. Hall, Regional Administrator  
3140 Federal Bldg, 915 Second Avenue  
Seattle, Washington 98174  
Tel: (206) 442-5935



STATE AND LOCAL RIDESHARING AGENCIES  
(Grouped by FHWA Regions)

Region I - CT, ME, MA, NH, NJ, NY, RI, VT, PR, VI

Masspool  
150 Causeway Street  
Room 301  
Boston, MA 05602

Nassau County Office of  
Public Transportation  
Davis Bldg., Plainview Complex  
1425 Old Country Road  
Plainview, NY 11803

Central Vermont Regional  
Planning Commission  
144 Main Street  
Montpelier, VT 05602

\*\*/

Region III - DE, DC, MD, PA, VA, WV

Computeride  
City of Baltimore  
414 N. Calvert Street  
Baltimore, MD 21202

Delaware Valley Regional  
Planning Commission  
3rd Floor, Penn Towers Bldg.  
1819 John F. Kennedy Boulevard  
Philadelphia, PA 19103

Vango  
Airport Investment Building  
Suite E-100  
Linthicum, MD 21090

Southwestern Pennsylvania  
Regional Planning Commission  
564 Forbes Avenue  
Pittsburgh, PA 15219

Montgomery County DOT  
6110 Executive Boulevard  
Rockville, MD 20852

Easyride, Peninsula Transportation  
District Commission  
3400 Victoria Boulevard  
Hampton, VA 23661

The Maryland-National Capitol  
Park and Planning Commission  
8787 Georgia Avenue  
Silver Spring, MD 20907

Tidewater Transportation  
Commission  
5 Koger Executive Center #201  
Norfolk, VA 23502

Harrisburg-Area Energy Action  
Program  
P.O. Box 711  
Harrisburg, PA 17108

Commuter Club  
Metropolitan Washington Council  
of Governments  
1225 Connecticut Avenue, N.W.  
Washington, D.C. 20036

\*\*/ There is no FHWA Region II. FHWA Region I conforms to standard  
Regions I & II.

Region IV - AL, FL, GA, KY, MS, NC, SC, TN

Birmingham Regional Planning  
Commission  
21 Office Plaza South, #220  
Birmingham, AL 35203

Central Mississippi Planning  
and Development District, Inc.  
2675 Riverridge Road  
Jackson, MS 39216

Taltran Carpool Information  
Center  
City of Tallahassee  
2620 S. Monroe Street  
Tallahassee, FL 32301

Mecklenberg County Engineering  
Department of Transportation  
720 E. Fourth Street  
Charlotte, NC 28202

Carpooling Committee  
Ashland Area Chamber of Commerce  
1740 Winchester Avenue  
Ashland, KY 41101

Carpool Coordinator  
Traffic Engineering Division  
City of Durham  
P.O. Box 2251  
Durham, NC 27702

Carpool Coordinator  
Barren River Development Dst.  
1415 Woodhurst Drive  
Bowling Green, KY 42101

Capital Area Carpool  
City of Raleigh  
P.O. Box 50  
Raleigh, NC 27602

Carpool Coordinator  
Greater Lexington Area  
Chamber of Commerce  
239 N. Broadway  
Lexington, KY 40501

Ridesharing Coordinator  
Central Midlands Regional  
Planning Council  
800 Dutch Boulevard, Suite 155  
Columbia, SC 29210

Metro Carpool Project  
Louisville Area Chamber of  
Commerce  
301 W. Liberty Street  
Louisville, KY 40202

Knoxville Commuter Pool  
City Hall Park  
Knoxville, TN 37902

Carpool Coordinator  
Owensboro-Davies County  
Chamber of Commerce  
P.O. Box 825  
Owensboro, KY 42301

Nashville Carpool Coordinator  
Office of the Mayor  
Stahlman Building, #615  
Nashville, TN 37201

Region V - IL, IN, MI, MN, OH, WI

Coordinator of Carpooling  
Madison County Council of  
Governments  
Madison County Govt. Center  
Anderson, IN 46106

Montgomery-Green County  
Transportation and Development  
Planning Program  
333 W. First Street, Suite 500  
Dayton, OH 45402

Region V (cont.)

Share A Ride  
MTC/Commuter Services  
4530 W. 77th Street  
Edina, MN 55435

Personal Mobility Committee, Inc.  
Suite 702, Transportation Bldg.  
Fourth and Sycamore Streets  
Cincinnati, OH 45202

Northeast Ohio Areawide  
Coordinating Agency  
439 The Arcade  
Cleveland, OH 44144

Toledo Metropolitan Area  
Council of Governments  
420 Madison Avenue  
Toledo, OH 43604

Milwaukee Area Carpooling  
Program  
901 N. 9th Street  
Milwaukee, WI 53233

Southeastern Wisconsin  
Regional Planning Commission  
916 N. East Avenue  
Waukesha, WI 58136

Region VI - AR, LA, NM, OK, TX

Capital Regional Planning Commission  
333 N. 19th Street  
P.O. Box 3355  
Baton Rouge, LA 70821

Lafayette Regional Planning  
Commission  
P.O. Box 2154  
Lafayette, LA 70501

Imperial Calcasieu Regional  
Planning and Development Commission  
P.O. Box 3164  
Lake Charles, LA 70601

Ouachita Council of Governments  
2115 Justice Street  
Monroe, LA 71201

Regional Planning Commission  
333 St. Charles Avenue  
Suite 900, Masonic Temple Bldg.  
New Orleans, LA 70130

Rapides Area Planning Commission  
P.O. Drawer 1410  
Pineville, LA 71360

Shreve Area Council of  
Governments  
1237 Murphy Street, Room 307  
Shreveport, LA 71101

Office of Transportation Programs  
City of Dallas  
New City Hall, Room 58 South  
1500 Marilla  
Dallas, TX 75201

Carpool Coordinator  
Traffic Engineering Department  
City of Fort Worth  
1000 Throckmorton Street  
Ft. Worth, TX 76102

Houston Carshare Program  
Public Transportation  
P.O. Box 1562  
Houston, TX 77001

Energy Conservation Program  
City of San Antonio  
P.O. Box 9066  
San Antonio, TX 78285

Region VII - IA, KS, MO, NE

Mid-America Regional Council  
20 W. 9th Street  
Kansas City, MO 64105

East-West Gateway Coordinating  
Council  
112 N. Fourth Street  
St. Louis, MO 63102

Lincoln Carpool/Vanpool Program  
Room A405  
County-City Building  
555 S. 10th Street  
Lincoln, NE 68508

Metro Area Carpool  
2615 Cuming Street  
Omaha, NE 68131

Region VIII - CO, MT, ND, SD, UT, WY

Rideshare Coordinator  
Denver Regional Council of  
Government  
2480 W 26th Avenue, Suite 200B  
Denver, CO 80211

Carpool Locator Service  
Pikes Peak Regional Library  
District  
P.O. Box 1579  
Colorado Springs, CO 80901

Region IX - AZ, CA, HI, NV

Project Pool It  
70 E. Mitchell Drive #2A  
Phoenix, AZ 85102

Commuter Computer of San Diego  
P.O. Box 82358  
San Diego, CA 92138

Rideshare, PIMA Association of  
Governments  
405 Transamerica Building  
Tucson, AZ 85701

Rides for Bay Area Commuters, Inc.  
100 Van Ness Avenue, 19th Floor  
San Francisco, CA 94102

Commuter Computer  
3440 Wilshire Boulevard  
Suite 610  
Los Angeles, CA 90010

Vanpool Project Administrator  
Golden Gate Bridge, Highway and  
Transportation District  
P.O. Box 9000 - Presidio Station  
San Francisco, CA 94129

Office of Ridesharing  
California DOT  
1120 N Street  
Sacramento, CA 95814

Van Go Hawaii  
1077 Bishop Street, Suite 442  
Honolulu, HI 96813

Region X - AK, ID, OR, WA

Carpool Program  
Municipality of Anchorage  
Pouch 6-650  
3500 Tudor  
Anchorage, AK 99502

Tri-County Metropolitan  
Transportation District  
4012 S.E. 17th Avenue  
Portland, OR 97202

Region X (cont.)

Environmental Services Director  
Fairbanks North Star Borough  
Box 1267  
Fairbanks, AK 99702

Salem Carpool Project  
Mid Williamette Valley COG  
Civic Center, Room 305  
Salem, OR 97301

Ridesharing Coordinator  
Ada County Highway District  
318 E. 37th Street  
Boise, ID 83704

Seattle/King County Commuter Pool  
Room 600 Old Arctic Building  
704 Third Avenue  
Seattle, WA 98104

o Staff members from DOT headquarters have expertise from a national perspective on various energy issues and programs. The contact points within each agency of DOT are listed below:

Office of the Secretary

o The Technology Sharing Division of the Office of Intergovernmental Affairs provides technical information to state and local governments.

Contact: Al Linhares, 426-4208

o An Energy Policy Division is included as one portion of the Office of Intermodal Transportation.

Contact: Donald Trilling, 426-4220

o The Office of Public Affairs develops promotional materials on ridesharing, the 55 m.p.h. program, and other energy related initiatives.

Contact: Mary Trullinger, 426-4333

o The Office of Environment and Safety coordinates policies and programs, conducts research and promotes information dissemination on bicycle transportation.

Contact: Bill Wilkinson, 426-4414

Federal Highway Administration

o The Ridesharing Branch of the Office of Highway Planning can provide general information on pooling approaches which have been used and funding sources which are available.

Contact: Barbara Reichart, 426-0210

o The Office of Engineering develops design and construction standards for bicycle facilities, administers the Bikeway Demonstration Program and provides information on the design and funding of bicycle facilities.

Contact: Tom Jennings, 426-0314

o The Transportation System Management Branch in the Office of Highway Planning can provide information on TSM techniques and methods such as preferential and exclusive lanes for high occupancy vehicles, parking policies, staggered work hours, etc.

Contact: Gary Maring, 426-0210

o The Office of Research conducts studies and disseminates information related to bicycling, pedestrians and moped use.

Contact: John Fegan, 426-9710

#### National Highway Traffic Safety Administration

o The Office of Heavy-Duty Vehicle Research can provide information on improving the energy consumption of trucks, heavy equipment and commercial vehicles.

Contact: Harry Close, 426-4553

o The Office of State Vehicle Programs can provide information on improving the fuel economy of vehicles through inspection, maintenance, and repair programs.

Contact: Joseph Innes, 426-1597

o The Office of Automotive Fuel Economy Standards can provide information on the energy efficiency of new passenger cars, and approaches to improving it.

Contact: Dick Strombotne, 426-0842

o The Office of Driver and Pedestrian Research can provide information on driver education approaches to energy efficient operation of passenger vehicles and also bicycles.

Contact: John Eberhard, 426-4892

o The Office of Driver and Pedestrian Programs sponsors demonstration projects, conducts workshops and conferences, and provides technical assistance on bicycle and pedestrian safety.

Contact: Larry Pavlinski, 426-4910

Urban Mass Transportation Administration

o The Office of Technology Development and Deployment conducts research on advanced transit vehicles and concepts.

Contact: Henry Nejako, 426-9261

o The Office of Planning Assistance administers the Planning Grant Program and conducts special energy planning research studies.

Contact: Richard Steinmann, 426-2360

o The Office of Service and Methods Demonstrations sponsors research in order to reduce travel time by transit, increase area of coverage of transit service, improve the reliability and productivity of transit and improve the mobility of transit dependents.

Contact: Ronald J. Fisher, 426-4995



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III. RESEARCH AND DEMONSTRATION PROJECTS

OST, FHWA, NHTSA, FRA, UMTA and the Research and Special Programs Administration (RSPA) of DOT are all involved with energy-related research activities and projects. This listing is intended to highlight significant current or recently completed activities and is not a comprehensive account of all research. The activities are listed by sponsoring agency:

OFFICE OF THE SECRETARY

Impacts of Energy Material Transportation

Time Frame: August 14, 1978 - March 1979

Funding Amount: \$55,000

Contractor/Grantee: Analysis Group, Inc.

DOT Project Manager: Nancy K. MacRae 426-4203

Project Objective:

Review and assess environmental, institutional and social problems involved in the movement of coal by slurry pipelines and rail; high voltage electric transmission; nuclear waste, and LNG/LPG.

Completed Reports:

Impacts of Energy Materials Transportation, March 6, 1979  
(available in limited numbers in P-13) by Arthur Paul et al.

Low-Level Nuclear Waste

Time Frame: May 30, 1979 - June 22, 1979

Funding Amount: \$10,700

Contractor/Grantee: Teknekron Research, Inc.

DOT Project Manager: Nancy K. MacRae 426-4203

Project Objective:

Review of the problem of low-level waste disposal and identify transportation issues and problems.

Completed Reports:

Transportation Issues Regarding Low-Level Nuclear Waste by Richard Milstein and Douglas K. Vogt, June 22, 1979.  
(available in P-13).

Unit Coal Train Impact Study

Time Frame: June 15, 1979 - August 30, 1979

Funding Amount: \$45,000

Contractor/Grantee: Jack Faucett Associates/Ernst & Whinney/  
Harland Bartholomew

DOT Project Manager: Nancy K. MacRae 426-4203

Project Objective:

To conduct a conference on the impact of increased unit coal train traffic and to write an analytical report of conference.

Completed Reports:

None, a report to Congress will be produced, incorporating the results of this effort.

Financial Aspects of Coal Transportation by Rail

Time Frame: September, 1978 - September, 1979

Funding Amount: \$50,000

Contractor/Grantee: Input Output Computer Services

DOT Project Manager: T. Marchessault 426-4168

Project Objective:

To assess the impact of finances on the transport of coal by rail.

Completed Reports:

None.

Energy Policies Project

Time Frame: Continuing

Contractor/Grantee: Transportation Systems Center

DOT Project Manager: D. Igo 426-0783

Project Objective:

Studies in support of policy development in energy conservation and energy materials transportation.

Completed Reports:

Changes in Transportation Energy Intensiveness 1972-77, TSC,  
May 1979

A Method for the Evaluation of Coal Slurry Pipelines, TSC,  
August 1978

Changes in Transportation Energy Intensiveness 1972-76, TSC,  
April 1978

Recreational Boating Energy Study

Time Frame: July, 1979 - September, 1979

Funding Amount: \$34,000

Contractor/Grantee: Jack Faucett Associates, Inc.

DOT Project Manager: Doris G. Velona 426-4138

Project Objective:

To measure the use of energy in the recreational boating industry.

Completed Reports:

Results will be incorporated in a Report to Congress, November 1979.

West to East Crude Oil Transportation

Time Frame: May, 1979 - August 15, 1979

Funding Amount: \$43,540

Contractor/Grantee: Jack Faucett Associates, Inc.

DOT Project Manager: Robert L. Decker 426-0783

Project Objective:

To assess the feasibility of four proposed west-to-east crude oil pipelines.

Completed Reports:

None.

Impacts of Utility and Industrial Emission Controls on the Transportation of Coal

Time Frame: September, 1978 - September 30, 1979

Funding Amount: \$74,275

Contractor/Grantee: Raven Systems and Research, Inc.

DOT Project Manager: Robert L. Decker 426-0783

Project Objective:

To evaluate the impact of emission controls on the transportation of coal.

Completed Reports:

Report to be completed by October 1979.

Coal Slurry Pipeline Cost Estimates

Time Frame: August 31, 1978 - August 15, 1979

Funding Amount: \$38,000

Contractor/Grantee: Input Output Computer Services, Inc.

DOT Project Manager: Elwyn Bull 426-0783

Project Objective:

To provide complete cost estimates for coal slurry pipeline component subsystems to be used in cost estimation of whole systems in varying characteristics.

Completed Reports:

Coal Slurry Pipeline Cost Estimates, IOCS, Inc. (For U.S. Department of Transportation) August 1979. Inquiries should be directed to Elwyn M. Bull, Room 9213, U.S. DOT, 400 7th Street, S.W., Washington, D.C. 20590)

Energy Materials Movement

Time Frame: September 20, 1978 - September 30, 1979

Funding Amount: \$39,954

Contractor/Grantee: Minority Services, Inc.

DOT Project Manager: R. Nutter 426-2916

Project Objective:

Collect and reduce to BEA level flows, data on actual 1975 energy materials movement, especially coal.

Completed Reports:

None.

Transit Energy Conservation and Federal Policy

Time Frame: September 26, 1978 - September 30, 1979\*

Funding Amount: \$185,388\*

Contractor/Grantee: International Business Services, Inc.

DOT Project Manager: R. Nutter 426-2916

Project Objective:

Examine the energy use by actual transit systems, the energy conservation potential and the impact of federal policy on transit energy decisions.

Completed Reports:

Final Report due October 1979

\* contract modification pending will add \$30,000 and extend 3 mths.

Overview of Pipeline Transportation

Time Frame: July, 1977 - October 1979

Funding Amount: \$187,569

Contractor/Grantee: Jack Faucett Associates

DOT Project Manager: T. E. Marchessault 426-4168

Project Objective:

The purpose of this project is to provide a comprehensive review of various issues related to the pipeline transportation industry. There will be 5 separate reports:

- Volume I: Overview of Pipeline Transportation
- Volume II: Transportation of Alaskan Natural Gas
- Volume III: Impact of Coal Slurry Pipelines
- Volume IV: West-to-East Crude Oil Transportation
- Volume V: Supplemental Gas Supply and Natural Gas Transport

Completed Reports:

None at this time; final reports should be available 10/15/79

Bicycle Transportation for Energy Conservation

Time Frame: February, 1979 - December, 1979

Funding Amount: \$62,000

Contractor/Grantee: Mountain Bicyclist's Association (Denver, CO)

DOT Project Manager: Bill Wilkinson 426-4414

Project Objective:

To estimate the energy conservation potential of bicycle transportation; identify obstacles to increased bicycle use; set a target goal for bicycle use for commuting; and develop a comprehensive program to achieve this goal.

Completed Reports:

The results of this Congressionally-mandated study are due to be reported to the President and the Congress in November, 1979. A more extensive technical report will be issued in January, 1980.

Community Bicycle Programs

Time Frame: February, 1978 - February, 1980

Funding Amount: \$57,000

Contractor/Grantee: Bicycle Federation (Missoula, MT)

DOT Project Manager: Bill Wilkinson 426-4414

Project Objective:

To provide for a comprehensive, community approach to assessing the needs of bicyclists, and to disseminate information on the "best" state-of-the-art in bicycle programs.

Completed Reports:

"Guidelines for Community Bicycle Programs" and a "Catalog of Bicycle Program Projects" will be available in February, 1980.



FEDERAL HIGHWAY ADMINISTRATION

Workshop on Energy Requirements for Transportation Systems

Time Frame: January 22, 1979 - September 16, 1979

Funding Amount: \$18,200

Contractor/Grantee: Earl Shirley

DOT Project Manager: Larry Isaacson 426-9173

Project Objective:

To provide for exchange of information on current and future energy situation and on the state-of-the-art of considering direct and indirect energy consumption in the analysis of alternative transportation actions.

Completed Reports:

Workshops thus far:  
Baltimore, Maryland  
Fort Worth, Texas  
Homewood, Illinois  
Denver, Colorado

(For copies of reports on these workshops contact Harry Bridges, HEV-22 at 426-9173).

Transportation Energy Contingency Planning

Time Frame: July 1, 1979 - December, 1979

Funding Amount: \$150,000

Contractor/Grantee: MIT

DOT Project Manager: Rich Steinmann, UMTA 426-2360  
Gary Maring, FHWA 426-0210

Project Objective:

To delineate major components of transportation energy contingency plans, as well as the constraints acting on such plans, and recommend appropriate policy, regulatory, and administrative action. Subsequent workshops are planned.

Completed Reports:

None.

Photovoltaic Market Studies

Contractor/Grantee: NASA

DOT Project Manager: King Gee  
HDP-015, 557-9080

Project Objective:

To determine market for photovoltaic applications

Completed Reports:

Market Definition Studies for Photovoltaic Highway Applications Report #DOE/NASA/0040-78/1, Dated December, 1978. Available from NTIS.

FHWA Energy Policy Statement

Project Objective:

To develop an FHWA policy statement that establishes an overall FHWA energy strategy including conservation objectives and office responsibilities.

Completed Reports:

Presently in draft stage. Includes Energy Contingency Plans, Fuel Conservation Policy, Systems Management, 55 MPH Compliance, Public Information, Goods Movement, Construction Practices, and Land Use/Transportation Coordination.

Contact: Harry Caldwell  
HHP-24, 426-0226

FHWA Contingency Plan

DOT Project Manager: Gary Maring, HHP-32, 426-0210

Project Objective:

To develop a plan to enable FHWA to be in a position to expeditiously respond to critical program needs during a significant energy shortfall.

Completed Reports:

Presently in draft stage. Plan element includes participation in Diesel Fuel Task Force, ensuring availability of fuel for vanpools, establishing a contingency plan for continuance of essential construction projects, creating an FHWA employee contingency plan, providing funding approval of energy-saving construction projects, providing technical assistance to State and local areas in developing contingency plans and providing information gathering and dissemination during shortages.

FHWA Energy Council

Time Frame: April 1979

DOT Project Manager: Thomas Downs, Associate Administrator for Planning

Project Objective:

To ensure coordination, direction, and appropriate policy formulation within FHWA.

Completed Reports:

The FHWA Energy Policy Statement and FHWA Energy Contingency Plan described above.

Energy Considerations in Transportation Planning

DOT Project Manager: Bruce Cannon, HHP-15, 426-1045

Project Objective:

To provide a general background of the energy situation and a discussion of alternative energy conservation strategies.

Completed Reports:

"Energy Considerations in Transportation Planning", dated March 1979. Released by Associate Administrator for Planning on April 12, 1979. Available from Planning and Programming Branch, HHP-15.

Energy Conservation Consideration in the Urban Transportation Planning Process

Time Frame: Anticipated completion August 1, 1981

Funding Amount: \$480,000 - DOE, FHWA  
\$320,000, DOE  
\$120,000, FHWA

Contractor/Grantee: 6 contracts have been awarded thus far for the development of papers on "State of the Art/State of the Practice of Energy Conservation Considerations in the UTP Process." The contractors are:

1. Cambridge Systematic, Inc.
2. Policy and Management Association, Inc.
3. University of California at Berkeley
4. Roger Creighton Associates, Inc.
5. Louis Keefer Associates, Inc.
6. University of Chicago at Urbana - Urban Systems Laboratory

DOT Project Manager: James Walls, Bonnie Danel 426-0215

Project Objective:

The objective of this program is to improve energy conservation and analysis efforts in urban transportation by developing a comprehensive approach for including energy considerations in all phases of planning and decision-making processes affecting urban transportation

Completed Reports:

Six individual papers to be presented at the seminar are now in progress. Draft papers are due to FHWA on August 13, 1979. Final papers are due to FHWA on September 28, 1979.

Training and Technical Assistance for National Ridesharing Program

Funding Amount: \$300,000

DOT Project Manager: Robert Redmond, HHP-33, 426-0210

Project Objective:

To develop and conduct ten regional training sessions for State, regional and Federal employees on ridesharing . . . its funding, implementation, marketing, insurance, etc. It will also provide technical assistance via a toll free number and site visits.

Ridesharing Technical Assistance Manuals

Time Frame: Early 1979

DOT Project Manager: Mary Trullinger - 426-4333  
OST Public Affairs

Project Objective:

To develop employer, employee, and State and local ridesharing technical assistance manuals.

Completed Reports:

How Ridesharing Can Help Your Company  
Community Ridesharing: A Leadership Role (brochure, 1978)  
available from DOT Office of Public Affairs

100 Percent Funding for Traffic Signal Improvements - Highway Act of 1978

Project Objective:

Utilize currently unobligated funds for improvement of traffic signalization.

Contact: Marshall Jacks, HTO-1, 426-0372

Changing Existing Mercury Lighting to High Pressure Sodium Lighting

Time Frame: June 1977

Project Objective:

To encourage conversion of existing mercury luminaires on the Federal-Aid systems to high pressure sodium as an energy conservation and maintenance economy measure.

Completed Reports:

Only report is an article in the Energy User News Vol.3, No. 50, Monday, December 11, 1978.

Engineering Fabrics in Construction

Time Frame: Ongoing

DOT Project Manager: J. DiMaggio, 426-0420

Project Objective:

Promote substitution of engineering fabrics for conventional methods of road stabilization coverage, filtration, and erosion control. Effect change in 25% of related highway work with attendant energy saving of 7,100,000 gallons of gasoline.

Completed Reports:

Various reports issued by the Implementation Division and Construction and Maintenance Division.

9 workshops starting in early 1981.

Ground Reinforcement Techniques

DOT Project Manager: R. Cheney 426-0420

Project Objective:

Develop and promote ground reinforcement methods such as pavement ground anchors, reinforced earth and stone columns to eliminate existing mass earthmoving operations.

Completed Reports:

None.

Waste Products in Construction

Contractor/Grantee: HHO-31

DOT Project Manager: J.D. Coursey 426-0355

Project Objective:

To encourage the development of experimental highway construction using promising waste products as an alternative to conventional materials.

Completed Reports:

None.

Lime Fly-Ash Stabilization

Contractor/Grantee: HHO-33

DOT Project Manager: J.J. Carroll 426-0420

Project Objective:

To encourage the use of fly-ash, a waste product in large supply, as a stabilizing agent in the construction of pavement bases and sub-bases.

Completed Reports:

Slide-type presentation on same.

Equipment Management Systems

Contractor/Grantee: HHO-34

DOT Project Manager: P.E. Cunningham 426-0436

Project Objective:

Develop a system design manual describing effective techniques for managing state fleets of maintenance equipment.

Completed Reports:

Equipment Management System - Parts I, II, and III - Available HHO-34, FHWA C&M Division

Reduced Mixing Temperature

Contractor/Grantee: HHO-33

DOT Project Manager: J.J. Carroll 426-0420

Project Objective:

To encourage the production of asphaltic concrete paving mixtures at the lowest practicable temperatures consistent with the necessity to produce a quality product.

Completed Reports:

None.

Portland Cement Concrete Overlays

Contractor/Grantee: HHO-31

DOT Project Manager: J.R. Schultz 426-0355

Project Objective:

To encourage the development of experimental highway construction projects utilizing portland cement concrete overlays as a cost-effective and energy efficient rehabilitation system.

Completed Reports:

None.

Sulfur Extended Asphalt

Contractor/Grantee: HHO-31

DOT Project Manager: Frank V. Botelho 426-0355

Project Objective:

To encourage the development of experimental highway construction projects using elemental sulfur as a partial replacement for the asphalt binder (thus saving petroleum) to develop data on the design, construction and performance of this system.

Completed Reports:

None.

Pavement Recycling

Contractor/Grantee: HHO-31

DOT Project Manager: J.R. Schultz 426-0355

Project Objective:

To encourage the development of experimental highway construction projects in which existing pavement materials are removed, reprocessed and incorporated into a new pavement rather than being discarded.

Completed Reports:

None.

Asphalt Emulsions

Contractor/Grantee: HHO-33

DOT Project Manager: John J. Carroll 426-0420

Project Objective:

To encourage more widespread use of asphalt emulsions as an alternative to cut-back asphalts in highway pavement construction and maintenance. (Workshops around the country).

Completed Reports:

A Basic Asphalt Emulsion Manual  
(Instructor's Manual from Workshops)

Support of State Photologging Efforts

Project Objective:

To encourage the use of photologging to reduce trips to the field, thereby saving fuel and money.

Completed Reports:

None.

Contact: Bill Baker, HTO-31  
426-1993

Evaluation of Traffic Operations Improvements

Project Objective:

To assess impact of traffic engineering improvements on fuel consumption.

Contact: Charles Dale, HTO-31  
426-1993

Recycling of Surplus Junkyard Inventory

Project Objective:

To encourage using recyclable material such as auto bulks for steel production.

Completed Reports:

None.

Contact: G. Saunders, HRW-10  
426-0142

Right Turn On Red

Time Frame: 1973 - 1979

Project Objective:

To encourage implementing legislation for uniform RTOR signing throughout the country.

Completed Reports:

None contemplated.

Panel Discussion on Energy Implications of Transportation Improvements

Project Objective:

Summarize present knowledge on the relationships between transportation improvements and energy consumption to help transportation officials more effectively deal with the growing emphasis on energy conservation.

Completed Reports:

Due February 1, 1980.

Contact: Don Emerson, HEV-22  
426-1033

Pavement Management

Project Objective:

Promotes and encourages comprehensive Pavement Management which is being the latest available technology to maximize effective use of resources.

Completed Reports:

None.

Contact: Leon Noel, HNG-23  
426-0327

Investigate Relative Energy Usage by Industry -- Prestressed Concrete vs. Structural Steel Superstructures

Project Objective:

It takes tremendous fossil fuel energy to produce the heat necessary to make the clinker which is pulverized to create Portland Cement powder. It also takes tremendous quantities of fossil fuel to produce the heat needed to reduce iron ore and to melt and roll steel. It is doubtful that anyone has ever made a comparative energy usage study to determine whether a typical highway bridge is more energy efficient if designed in steel vs. prestressed concrete or other concrete.

Contact: John Kruegler, HNG-34  
426-0426

Removing Long Detours by Bridge Repair or Replacement

Project Objective:

When a bridge is closed or posted, for some or all of the vehicles which would ordinarily take the short route across the river (or some other obstacle) a new longer route becomes necessary. This is obviously wasteful of gasoline and diesel fuel. For one bridge location studied recently, (West Seattle Bridge), 2,500,000 gallons of fuel were estimated wasted in a single year. The nationwide extrapolation over many years is obviously enormous although not quantified to our knowledge.

Contact: Lester Harr, HNG-30  
426-0426



Identification and Feasibility of Demand Incentives for Non-Motorized Travel

Time Frame: October 1, 1976 to January 15, 1980

Funding Amount: \$212,000

Contractor/Grantee: Barton Aschman Associates, Inc.

DOT Project Manager: John C. Fegan, FHWA/Sonya Hill, OST

Project Objective:

To identify or develop incentives for shifting from motorized to non-motorized travel. Walking and bicycling for utilitarian trip in urban areas will be evaluated.

Completed Reports:

None.

Effectiveness of Highway Arterial Lighting Treatments

Time Frame: July 1975 to April 1977

Funding Amount: \$158,000

Contractor/Grantee: Franklin Institute Research Laboratories

DOT Project Manager: Richard Schwab, FHWA

Project Objective:

A wide variety of highway lighting systems were to be evaluated in terms of traffic safety and energy usage. An economic analysis methodology was to be developed to aid highway agencies in establishing cost-effective lighting system designs.

Completed Reports:

"Effectiveness of Highway Arterial Lighting" by M.S. Janoff et al., FHWA Report No. RD-77-37, July 1977. (This research was co-sponsored by the Federal Energy Administration's Office of Energy Conservation and Environment.)

Vehicle Operation, Fuel Consumption, and Emissions as Related to Highway Design and Operation

Time Frame: June 1976 to April 1978

Funding Amount: \$465,000

Contractor/Grantee: Planning Environment International

DOT Project Manager: Michael Freitas, FHWA

Project Objective:

To determine, for automobiles, the relationship between vehicle operating characteristics and the design and operating characteristics of highways; to develop procedures for impact analysis of vehicle fuel consumption and emissions as related to highway design and operating characteristics.

Completed Reports:

"Vehicle Operation, Fuel Consumption, and Emissions as Related to Highway Design and Operation" Interim Progress Reports, 2 Volumes by Planning Environment International in association with Olson Laboratories, Inc., Unpublished Report dated October 1977 (Objectives of this contract not entirely met. This work is continuing at the Office of Energy and Environment, Transportation Systems Center).

Integrated Motorist Information System - Phases I & II: Feasibility

Time Frame: November 1975 - June 1978

Funding Amount: \$683,732

Contractor/Grantee: Sperry Rand Corporation

DOT Project Manager: A. D. Rosen 557-5224

Project Objective:

To design an integrated motorist information system for a feasible intercity corridor using existing technology in traffic surveillance, control, motorist information and motorist aid.

Completed Reports:

Integrated Motorist Information (IMIS) Feasibility and Design Study, Phase I, Feasibility Study, Volume I, FHWA-RD-77-47, April 1977. Fuel savings estimated.

Ibid, Volume 2, Appendices, FHWA-RD-77-48

Ibid, Volume 3, Executive Summary, FHWA-RD-77-49

Integrated Motorist Information System (IMIS) Feasibility Study, Phase II, Generalized Methodology for IMIS Feasibility Studies, Volume I, Handbook, FHWA-RD-78-23, May 1978

Ibid, Volume 2, Validation and Application of Feasibility Study Handbook, FHWA-RD-78-24, May 1978

Measures of Effectiveness for Multimodal Urban Traffic Management

Time Frame: March 1977 - September 1979

Funding Amount: \$407,193

Contractor/Grantee: JHK & Associates

DOT Project Manager: D.A. Rosen 557-5224

Project Objective:

To develop a comprehensive set of goals and objectives for Transportation System Management (TSM) strategies, to derive 1 measures of effectiveness (MOE's) for determining the degree to which each objective is achieved, to develop a taxonomy of TSM strategies and to identify and present data collection and analysis methods for the evaluation of TSM strategies.

Completed Reports:

Measures of Effectiveness for Multimodal Urban Traffic Management, Volume 2, Development and Evaluation of TSM Strategies. FHWA-RD-79-113, September 1979. Includes methods for estimating fuel savings from TSM strategies.

Signal Cycle Length and Fuel Consumption and Emissions

Time Frame: Staff research completed on August 1976

Funding Amount: \$3,000

Organization: Traffic Systems Division

DOT Investigators: Stephen L. Cohen and Gary Euler

Project Objective:

To study the relationships between fuel consumption/emissions, traffic control parameters and traffic performance measures of effectiveness.

Completed Reports:

Paper "Signal Cycle Length and Fuel Consumption and Emissions" published on the Transportation Research Record 667, pp. 41-47. Transportation Research Board, Washington, D.C. 1980.

Macroscopic Simulation for Urban Traffic Management

Time Frame: August 1977 - February 1980

Funding Amount: \$486,062

Contractor/Grantee: KLD Associates, Inc.

DOT Project (Contract) Manager: Guido Radelat

Project Objective:

To develop a macroscopic simulation model of traffic flow in urban areas that will be useful for pretesting and evaluating traffic management strategies. Fuel consumption is one of the measures of effectiveness to be used in the evaluation.

Completed Reports:

None.

Analysis of Motorist Navigation Performance

Time Frame: February 1, 1980 - July 31, 1981

Funding Amount: \$225,000

Contractor/Grantee: to be selected

DOT Project Manager: Dr. Truman Mast

Project Objective:

Determine the cost of inefficient navigation in terms of additional travel, lost time, energy waste and diminished safety. Identify potential solutions and order them on basis of achievable benefits.

Completed Reports:

None.

A Study of Clearance Intervals, Flashing Operation and Left-Turn Phasing for Traffic Signals

Time Frame: June 17, 1975 to May 31, 1978 (35½ months)

Funding Amount: \$227,024

Contractor/Grantee: Tammen, Johnson, Kinzel & Mimiaga

Project Objective:

To evaluate various methods for improving traffic operations of signalized intersections while at the same time reducing accidents.

Completed Reports:

Volume 1 (Summary Report)

Volume 2 (Clearance Intervals)

Volume 3 (Flashing Operations)

Volume 4 (Left-Turn Phasing)

Determination of Traffic Signal Intensity Levels

Time Frame: September 29, 1978 to August 29, 1981 (36 months)

Funding Amount: \$328,920

Contractor/Grantee: KLD Associates, Inc.

DOT Project (Contract) Manager: Doug Robertson 557-5231

Project Objective:

To determine if the dimming of traffic signals is feasible.

Completed Reports:

None.

Implications of Light Weight, Low-Powered Future Vehicles in the Traffic Stream

Time Frame: June 1978 to September 1980 (27 months)

Funding Amount: \$295,400 total

Contractor/Grantee: Midwest Research Institute

DOT Manager: Dr. S. C. Tignor

Project Objective:

Because of the energy crisis, ways must be found to conserve and save energy. The low-powered, light weight vehicle is expected to do this. During the transition to a low-powered vehicle population, it is expected that degradation of traffic flow performance may result. This study will identify and quantify those operational problems found to be most critical from a safety point of view. The object of this study is to determine the impact of light weight low-powered future vehicles on traffic flow, roadway capacity, and level of service for each year through 1985.

Completed Reports:

A final report will be published after completion of this study.

Effectiveness of Freeway Lighting

Time Frame: September 15, 1976 to February 15, 1979 (29 months)  
Funding Amount: \$186,800  
Contractor/Grantee: Mark Battle Associates, Inc.  
DOT Manager: Ken Jones 426-4980

Project Objective:

To determine the possible safety implications of decisions to reduce freeway lighting and develop recommendations and a general methodology to evaluate the trade-off between the costs and benefits of freeway lighting.

Completed Reports:

Final report is now in printing.

Planning and Scheduling Work Zone Traffic Control

Time Frame: April 24, 1978 to April 24, 1980 (24 months)  
Funding Amount: \$185,205  
Contractor/Grantee: JHK and Associates, Inc.  
DOT Manager: Doug Robertson 557-5231

Project Objective:

To develop a procedure for 1) estimating the costs and consequences of alternative work zone strategies under varying traffic demands and environmental conditions and 2) selecting the appropriate strategy for the given demands and conditions.

Completed Reports:

None to date.

Freeway Control and Management for Energy Conservation

Time Frame: September 1979 - December 1980  
Funding Amount: \$117,600  
Contractor/Grantee: JFT Associates  
DOT Project (Contract) Manager: Howard H. Bissell 557-5231

Project Objective:

To determine and to provide guidelines on how best to obtain short-range and long-range freeway management objectives to promote energy conservation.

Completed Reports:

None.

Criteria for Removing Traffic Signals

Time Frame: September 29, 1978 - March 29, 1980  
Funding Amount: \$81,900  
Contractor/Grantee: JHK and Associates  
DOT Project (Contract) Manager: Howard H. Bissell 557-5231

Project Objective:

To develop and field test criteria that may be adopted as warrants for the removal of existing traffic control signals.

Completed Reports:

None.

Evaluation of Fringe Parking Facilities for Carpool Staging

Time Frame: August 5, 1976 - December 1, 1979

Funding Amount: \$100,000

Contractor/Grantee: California Department of Transportation

DOT Project (Contract) Manager: Howard H. Bissell 557-5231

Project Objective:

To implement and evaluate fringe parking in California aimed at increasing vehicle occupancy in order to improve air quality and to reduce energy consumption.

Evaluation of Preferential Lanes for High Occupancy Vehicles at Metered On Ramps

Time Frame: May 20, 1976 - February 1, 1980

Funding Amount: \$149,850

Contractor/Grantee: California Department of Transportation

DOT Project (Contract) Manager: Howard H. Bissell 557-5231

Project Objective:

To evaluate the concept of bypasses for carpools and buses at metered on ramps on the Golden State Freeway in Los Angeles, CA.

Completed Reports:

None.

Fringe Parking Lots for Carpoolers

Time Frame: June 30, 1978 - March 31, 1980

Funding Amount: \$94,535

Contractor/Grantee: Alan M. Voorhees and Associates

DOT Project (Contract) Manager: Howard H. Bissell 557-5231

Project Objective:

To develop guidelines for the location and design of fringe parking lots for carpoolers.

Completed Reports:

None.

Application of UTCS First Generation Control Software to Arterials

Time Frame: June 27, 1977 - December 15, 1979

Funding Amount: \$166,000

Contractor/Grantee: JHK & Associates

DOT Project Manager: C. J. MacGowan 557-5227

Project Objective:

To conduct a field evaluation of the effectiveness of the computer-based traffic signal control system in New Orleans, Louisiana, including estimates of fuel consumption savings.

Completed Reports:

Application of UTCS First Generation Control Software in New Orleans, July 1978.

Bus Signal Priority Strategies - Phase I

Time Frame: July 16, 1979 - April 18, 1980

Funding Amount: \$45,257

Contractor/Grantee: KLD Associates, Inc.

DOT Project (Contract) Manager: C. J. MacGowan 557-5227

Project Objective:

To develop an experimental design for conducting research on preferential treatment of buses at signalized intersections.

Completed Reports:

None.

Application of Existing Strategies to Arterial Signal Control

Time Frame: February 7, 1978 - August 15, 1980

Funding Amount: \$237,000

Contractor/Grantee: Alan M. Voorhees & Associates, Inc.

DOT Project (Contract) Manager: C. J. MacGowan 557-5227

Project Objective:

To determine the best available signal control strategies for a variety of arterial types to reduce congestion, fuel consumption, and air pollution.

Completed Reports:

None.

Development of an Arterial Analysis Package (AAP)

Time Frame: October 1978 - April 1980

Funding Amount: \$200,000

Contractor/Grantee: University of Florida

DOT Project (Contract) Manager: Gary Euler 557-5224

Project Objective:

To develop a package of computer programs which will be able to analyze the operation of arterial facilities. Traffic engineers will be able to use the AAP as a tool to determine effective control strategies on urban arterials and, thus, improve traffic flow and reduce fuel consumption and emissions.

Completed Reports:

None.

Integration of BPS Strategies With NETSIM

Time Frame: October 1979 - March 1980

Funding Amount: \$20,000

Contractor/Grantee: JFT Associates

DOT Contract Manager: Gary Euler 557-5224

Project Objective:

To program and debug bus priority system (BPS) strategies submitted by the New Jersey Department of Transportation for integration with the NETSIM traffic simulation model. This will permit the evaluation of these strategies using the NETSIM model. Effective BPS strategies can reduce bus delay, thus encouraging ridership and reducing fuel consumption.

Completed Reports:

None.

Passive Bus Detector

Time Frame: April 1974 - March 1978

Funding Amount: \$765,900

Contractor/Grantee: Honeywell, Inc.

DOT Project Manager: Frank J. Mammano 557-5227

Project Objective:

To develop a detector to distinguish between buses and other vehicular traffic with no equipment requires on the bus.

Completed Reports:

"Vehicle Detection - Phase III: Passive Bus Detector/ Intersection Priority System Development," Lubke, R., Putnam, G. Report no. FHWA-RD-77-120 through 123.

Extension and Replacement of Asphalt Cement with Sulphur

Time Frame: June 30, 1975 - June 30, 1978

Funding Amount: \$225,000

Contractor/Grantee: Texas Transportation Institute

DOT Project Manager: Edward T. Harrigan

Project Objective:

To develop and verify a procedure for evaluating and demonstrating the influence of substituting sulphur for asphalt cement in asphalt mixtures and the resultant effects on the pavement design process. To investigate new processes for dispersing sulphur in asphalt cement.

Completed Reports:

Extension and Replacement of Asphalt Cement with Sulphur, FHWA-RD-78-95, and Executive Summary, FHWA-RD-78-160.



Evaluation of Wood Lignins as Substitutes for Asphalt

Time Frame: June 16, 1976 - May 31, 1979

Funding Amount: \$238,385

Contractor/Grantee: University of Washington.

DOT Project Manager: Edward T. Harrigan

Project Objective:

The objective is to develop binders from wood lignins or wood bark for use as substitutes or extenders for asphalt cement in flexible paving mixtures. Work includes study of technical and economic feasibility, followed by development of methods to convert the materials to insoluble binders, evaluation of binder properties and development of thermoplastic concrete mixture design procedures using such binders.

Completed Reports:

None.

Highway Binder Materials from Cellulosic and Related Wastes

Time Frame: August 25, 1976 - November 30, 1979

Funding Amount: \$273,309

Contractor/Grantee: Suntech, Inc.

DOT Project Manager: Edward T. Harrigan

Project Objective:

Investigate the technique and economic feasibility of producing binder materials from cellulosic and related wastes and develop an appropriate process(es) for their production.

Completed Reports:

None.

Design of Open Friction Courses with Sulphur Extended Asphalt Binders

Time Frame: April 27, 1979 - April 27, 1981

Funding Amount: \$98,900

Contractor/Grantee: Texas A&M Foundation

DOT Project Manager: Edward T. Harrigan

Project Objective:

Develop mixture designs for open friction courses based on the use of sulphur extended asphalt in place of asphalt cement.

Completed Reports:

None.

Materials and Techniques for Improving the Engineering Properties of Sulphur

Time Frame: June 30, 1976 - December 31, 1979

Funding Amount: \$388,716

Contractor/Grantee: Southwest Research Institute

DOT Project Manager: Edward T. Harrigan

Project Objective:

To investigate and develop sources of materials and suitable processes that can be used to improve the engineering properties of sulphur to provide sulphur cements as alternates for asphalt cement and for portland cement.

Completed Reports:

None.

Softening or Rejuvenating Agents for Recycled Bituminous Binders

Time Frame: September 29, 1978 - September 29, 1980

Funding Amount: \$131,800

Contractor/Grantee: Texas A&M Research Foundation

DOT Project Manager: Joseph A. Zenewitz

Project Objective:

Develop tests and techniques to evaluate the compositions of salvaged bituminous binders; determine the necessary properties and composition of rejuvenators to restore the salvaged binder to a condition suitable for paving purposes with a reasonably defined performance.

Completed Reports:

None.

Test for Efficiency of Mixing Recycled Asphalt Pavements

Time Frame: September 27, 1978 - September 27, 1980

Funding Amount: \$141,625

Contractor/Grantee: University of Washington

DOT Project Manager: Edward T. Harrigan

Project Objective:

Develop a test method and necessary test equipment to evaluate the mixing efficiency for recycled asphalt pavement materials. Determine if recycled paving mixes are homogeneous.

Completed Reports:

None.

Design Bridges that Require Less Maintenance

Project Objective:

Maintenance operations are energy expensive in themselves and usually produce back-ups and detours which are energy wasteful to the public.

Contact: George Romack  
HHO-34, 426-0436

Recycled Rubber in Roads

Time Frame: July 1, 1974 - July 1, 1979

Funding Amount: \$48,000

Contractor/Grantee: University of Connecticut

DOT Project Manager: William Bralove 557-5262

Project Objective:

To determine the potential for beneficially using large amounts of recycled or reclaimed rubber in the solution of a solid waste problem while simultaneously solving road building and maintenance problems.

Completed Reports:

None.

Bituminous Concrete Pavement Recycling

Time Frame: June 20, 1979 - June 30, 1984

Funding Amount: \$73,000

Contractor/Grantee: Connecticut DOT

DOT Project Manager: Richard McComb 557-5262

Project Objective:

To evaluate the performance of recycled bituminous concrete pavements using conventional pavement designs for control.

Completed Reports:

None.

Potential Use of Deflection Measurements to Assist in Designing Recycled Asphalt Pavements

Time Frame: July 2, 1979 - June 30, 1982

Funding Amount: \$50,000

Contractor/Grantee: California DOT

DOT Project Manager: Richard McComb 557-5262

Project Objective:

To determine the effect of recycling asphalt pavements on roadway deflections, and to develop an overlay design method for recycled asphalt pavements based on deflection analysis.

Completed Reports:

None.

Use Prefabricated Standard Parts in Bridges

Project Objective:

When bridges are closed typically for deck work and other bridge work, traffic is either confined to a partial width of traveled way or it is detoured. Either system produces vehicle energy wastage. On the other hand, if prefabricated deck units (or other parts) were to be employed and erected during off-peak or night hours, the back-up or detour could be eliminated and result in sizeable energy savings.

Contact: Frank Sears  
HNG-32, 472-7680

The NCHRP (National Cooperative Highway Research Program) is a three-way contract between AASHTO (American Association of State Highway and Transportation Officials), the FHWA and TRB (Transportation Research Board). Research activities are selected by the AASHTO Select Committee on Research and administered by TRB with approval by State officials. FHWA reviews contractor selection, program content and the completed work product.

#### NCHRP PROJECTS

##### Guidelines for Public Transportation Levels of Service and Evaluation (NCHRP Project #8-16)

Time Frame: January 1, 1976 - September 30, 1979

Funding Amount: \$489,217

Contractor/Grantee: University of Tennessee

Project Manager: Ian Kingham 202/389-6741

##### Project Objective:

To determine the nature of the relationships between public transportation service, the urban environment, and user segments, and to develop guidelines in evaluating short term alternative public transportation systems.

##### Completed Reports:

Five NCHRP reports will be developed from this project and will be available by late 1979 or early 1980. Report #210 will deal with the Economic, Energy and Environmental Impacts of Public Transportation.

##### Guidelines for Use of Vanpool and Carpools as a Transportation System Management Technique (NCHRP Project #8-21)

Time Frame: March 1, 1979 - November 30, 1980

Funding Amount: \$250,000

Contractor/Grantee: George Washington University

DOT Project Manager: Ian Kingham 202/389-6741

##### Project Objective:

To identify effective policies and their impacts to encourage vanpooling and carpooling use based on an understanding of individual and household preferences and behavior.

##### Completed Reports:

None.

Transportation Financing Within the Context of Energy Constraints  
(NCHRP Project #8-22)

Time Frame: March 26, 1979 - June 30, 1980

Funding Amount: \$100,000

Contractor/Grantee: System Design Concepts, Inc.

Project Manager: Robert Spicher 202/389-6741

Project Objective:

To determine the impact of energy conservation policies and proposals on State transportation financing.

Completed Reports:

None.

Fuel Supply Limitations and Passenger Travel (NCHRP Project #8-23)

Time Frame: April 2, 1979 - July 2, 1980

Funding Amount: \$110,000

Contractor/Grantee: Charles River Associates, Inc.

DOT Project Manager: Ian Kingham 202/389-6741

Project Objective:

To assist decision-makers at all levels of government to incorporate fuel supply limitations in passenger transportation planning, alternative evaluation, and policy development.

Completed Reports:

None.

FHWA MONITORING ACTIVITIES

Weekly Traffic Trends Press Release

Project Objective:

To monitor travel trends, especially during periods of fuel shortfall.

Completed Reports:

None.

Contact: Paul Svercl and Ken Welty  
HHP-44, 426-0160

Monthly Traffic Volume Trends

Project Objective:

To monitor travel trends.

Completed Reports:

An ongoing process, this monitors travel trends over time.

Contact: Ken Welty  
HHP-44, 426-0160

Monthly Motor Gasoline Reported by States

Project Objective:

To give an indication of trends in gasoline sales by month.

Contact: Kumas Toda  
HHP-43, 426-0187

FHWA DEMONSTRATION PROJECTS

Concrete Recycling Demo Project #47

Time Frame: April 1978 -

Funding Amount: \$85,000

Contractor/Grantee: State Highway Agencies

DOT Project Manager: Gary Henderson  
HDP-015 557-0522

Project Objective:

Primary energy savings realized by elimination of hauling distances in bringing in new aggregate and disposing of old.

Completed Reports:

None.

Solar Energy for Highway Uses Demonstration Project #52

Time Frame: November, 1978 - 1983

Funding Amount: DOE, \$500,000; FHWA, \$200,000

Contractor/Grantee: State Highway Agencies

DOT Project Manager: King Gee  
HDP-015 557-9080

Project Objective:

To provide design and construction money to States for solar energy projects which are highway related.

Completed Reports:

None.

Access Control Demonstration Project

Time Frame: September 1983

Funding Amount: \$23.3 million

Project Objective:

The purpose is to demonstrate whether various techniques to control right of access to existing highways is a cost-effective alternative to constructing additional highways.

Completed Reports:

States have been selected.

Contact: Charles L. King  
HNG-25, 426-0306

1977 Traffic Signal Demonstration Program

Project Objective:

To demonstrate effectiveness of modern technology in making traffic signals more efficient thereby making for fuel efficiency.

Contact: Marshall Jacks  
HTO-1, 426-0372

Ridesharing Demonstration Program

Time Frame: March, 1979 - March, 1981

Funding Amount: \$2,000,000

Contractor/Grantee: Ridesharing Agencies

DOT Project Manager: Barbara Reichart  
HHP-33 426-0210

**Project Objective:**

FHWA is coordinating the Comprehensive Ridesharing Demonstration Program that had as its major objective to advance the state of the practice in ridesharing by testing certain innovative and untried approaches to marketing, employer involvement, management and incentives. Under this two-year demonstration, FHWA and UMTA will provide a total of \$2 million that will be matched by cities and States to carry out the projects. Project sponsors will be required to commit Federal-aid transportation funds at the rate of \$2 (Federal-aid, including the local match) for every \$1 of special demonstration funds.

Projects that were selected for funding are sponsored by the following: Los Angeles County/"Come Together"/SCAG, Colorado State Department of Highways, Georgia State Department of Transportation, Regional Transit Authority in Chicago, Regional Planning and Development Agency of Louisville, Massachusetts State Executive Office of Construction and Maintenance, Michigan DOT, Central Mississippi Planning and Development District, City of Lincoln (NE), North Carolina DOT, Ohio-Kentucky-Indiana COG, Tri-Met Transportation District, Delaware Valley Regional Planning Commission, Metropolitan Transit Agency of Houston, Energy Conservation Program of San Antonio, Tidewater Regional Transportation District, Seattle/King County Commuter Pool.



FEDERAL RAILROAD ADMINISTRATION

Coal Transportation Efficiency Program: Small Mine Operations

Time Frame: August, 1979 - August 1981

Funding Amount: \$767,796

Contractor/Grantee: Booz, Allen and Hamilton, Inc.

DOT Contract: Robert Stearns, 426-9682

Project Objective:

To investigate the feasibility of utilizing train loading stations, including mineral preparation facilities, for the assembly of bituminous coal from a series of small mines.

Locomotive Data Acquisition Package

Time Frame: January 1980

Funding Amount: \$570,000

Contractor/Grantee: University of California

DOT Contact: John Roper, 426-0808

Project Objective:

Portable data recorder for evaluating performance improvements.

Dual-Mode Locomotive System Engineering Study

Time Frame: August, 1980

Funding Amount: \$75,000

Contractor/Grantee: to be determined

DOT Contact: John Roper, 426-0808

Project Objective:

Analyze the potential of modifying conventional diesel-electric locomotive to all electric operation in mountainous terrain.

Alternative Fuels for Medium-Speed Diesels

Time Frame: June, 1980

Funding Amount: \$134,000

Contractor/Grantee: DOE, Interagency Agreement

DOT Contact: John Roper, 426-0808

Project Objective:

Evaluate the Use of lower grade "off-specification" distillate fuel in locomotive diesel for effects on performance, emissions, wear.

Energy Management Workshop

Time Frame: December, 1979

Funding Amount: \$13,500

Contractor/Grantee: A. T. Kearney

DOT Contact: John Roper, 426-0808

Project Objective:

Demonstrate utilization of computer models analytical techniques to improve train performance predictive methodologies

Resistance of Freight Trains

Time Frame: January, 1980

Funding Amount: \$200,000

Contractor/Grantee: MITRE Corporation

DOT Contact: John Roper, 426-0808

Project Objective:

Analyze resistance components of freight car rolling stock, develop techniques to improve fuel consumption, reduce operational energy costs

URBAN MASS TRANSPORTATION ADMINISTRATION

Methods for the Prediction of Transportation System Impacts

Time Frame: September, 1978 - October, 1979

Funding Amount: \$13,500

Contractor/Grantee: Peat, Marwick and Mitchell

DOT Project Manager: Al Harf, UPM-12, 426-2360

Project Objective:

Identification of appropriate analyses and analysis techniques for assessing the full range of impacts resulting from major highway and transit investments. Energy consumption is among these impacts.

Completed Reports:

Technical memoranda on various impacts  
(not available to general public)

Methods for the Prediction of Transportation System Impacts

Time Frame: September, 1978 - October, 1979

Funding Amount: \$14,000

Contractor/Grantee: Charles River Associates

DOT Project Manager: Al Harf, UPM-12, 426-2360

Project Objective:

Identification of appropriate analyses and analysis techniques for assessing the full range of impacts resulting from major highway and transit investments. Energy consumption is among these impacts.

Completed Reports:

Technical memoranda on various impacts  
(not available to general public)

Price and Service Improvements

Time Frame: June, 1978 - June, 1980

Funding Amount: \$300,000

Contractor/Grantee: City of Vancouver

DOT Project Manager: V. Milione, UPM-30, 426-4984

Project Objective:

To demonstrate the effectiveness of improving transit service and reducing fares for diverting auto users and transit along a congested corridor.

Completed Reports:

None.

Off-Peak Fare Free Demonstration

Time Frame: February, 1978 - October, 1979

Funding Amount: \$1,000,000

Contractor/Grantee: Denver Regional Transportation District

DOT Project Manager: S. McKeown, UPM-33, 426-4984

Project Objective:

Examine the impact of free off-peak transit fares on transit ridership and auto travel

Completed Reports:

Denver Off-Peak Free Fare Public Transit Experiment -  
Interim Report

UMTA/TSC Evaluation Series March 1979

Employer-Sponsored Transit Fare Prepayment Instruments

Time Frame: September, 1977 - July, 1980

Funding Amount: \$148,000

Contractor/Grantee: Jacksonville Transportation Authority

DOT Project Manager: V. Milione, UPM-30, 426-4984

Project Objective:

To test the impact of distributing and promoting various transit fare prepayment instruments through employers on pass sales and transit ridership.

Completed Reports:

None.

Off-Peak Fare-Free Transit

Time Frame: June, 1977 - September, 1980

Funding Amount: \$500,026

Contractor/Grantee: New Jersey Department of Transportation

DOT Project Manager: V. Milione, UPM-30, 426-4984

Project Objective:

Demonstration of an off-peak fare-free transit system to increase ridership and assess impact on modal shift

Completed Report:

In draft stage - available from NTIS, August, 1979.

Central Business District Off-Peak Fare-Free Demonstration

Time Frame: June, 1978 - December, 1980

Funding Amount: \$325,904

Contractor/Grantee: Capitol District Transportation Authority  
Albany, NY

DOT Project Manager: V. Milione, UPM-30, 426-4984

Project Objective:

Provide empirical information on CBD revitalization, stimulating fare-paying passenger traffic outside of zone, acquaint nonusers and infrequent transit users, and improve the image of public transport.

Completed Reports:

Interim Internal Draft - "Albany CBD Interim Report"

Transit Fare Prepayment Promoted Through Employers

Time Frame: June, 1979 - June, 1980

Funding Amount: \$169,765

Contractor/Grantee: Sacramento Regional Transportation District

DOT Project Manager: S. McKeown, UPM-33, 426-4984

Project Objective:

Test impact of marketing monthly transit passes through employers on project pass sales and transit ridership.

Completed Reports:

None.

Parking Price Demonstration

Time Frame: September, 1978 - November, 1980

Funding Amount: \$821,221

Contractor/Grantee: DOT, City of Madison, Wisconsin

DOT Project Manager: S. McKeown, UPP-33, 426-4984

Project Objective:

Increase availability of short term parking; encourage higher occupancy of autos; encourage use of mass transit.

Completed Reports:

None.

Houston I-45 Contraflow Lane

Time Frame: October, 1979 - October, 1980

Funding Amount: \$1,500,000

Contractor/Grantee: City of Houston

DOT Project Manager: M. Futrell, UPM-32, 426-4984

Project Objective:

To test the feasibility of a contraflow reserved lane on a freeway to effectively and safely handle buses and carpools, vanpools; improved travel time and reliability will attract more people to HOV's.

Completed Reports:

None.

Bicycle/Transit Integration

Time Frame: June, 1978 - December, 1980

Funding Amount: \$182,000

Contractor/Grantee: Santa Barbara Metro Transit District

DOT Project Manager: P. Fish, UPM-30, 426-4984

Project Objective:

Integrate bicycle use with the transit system by using bicycle trailers and storage racks and lockers.

Completed Reports:

None.

Total Commuter Service

Time Frame: January, 1978 - October, 1979

Funding Amount: \$335,000

Contractor/Grantee: Metropolitan Transit Commission  
(St. Paul, Minnesota)

DOT Project Manager: Mary Churchman, UPM-30, 426-4984

Project Objective:

To demonstrate ridesharing brokerage for large employment centers

Completed Reports:

Interim Evaluation of the Minneapolis Ridesharing Commuter Services Demonstration UMTA Report MN-06-0008-79-1  
Available through NTIS and UPM-30

Employment Center Bus Service

Time Frame: June, 1978 - December, 1979

Funding Amount: \$538,100

Contractor/Grantee: Southern California Rapid Transit District

DOT Project Manager: P. Fish, UPM-30, 426-4984

Project Objective:

To demonstrate multiple trip subscription bus service for large employment centers

Completed Reports:

"Employment Center Bus Service - Guidelines for Implementation"  
Report available from GPO Stock #050-000-00142-3

Tidewater Vanpool Demonstration

Time Frame: July, 1977 - September, 1979

Funding Amount: \$490,000

Contractor/Grantee: Tidewater Transportation Commission  
(Norfolk, Virginia)

DOT Project Manager: Lynn Sahaj, UPM-30, 426-4984

Project Objective:

Vanpool demonstration for employees of Navy facilities.

Completed Reports:

None.

Golden Gate Vanpool

Time Frame: November, 1977 - June, 1980

Funding Amount: \$1,002,000

Contractor/Grantee: Golden Gate Bridge, Highway, and Transportation District

DOT Project Manager: P. Fish, UPM-30, 426-4984

Project Objective:

To test the feasibility of transitioning vanpoolers from project vans into private vanpooling arrangements.

Completed Reports:

None.

Casual Carpool

Time Frame: June, 1979 - June, 1980

Funding Amount: \$213,000

Contractor/Grantee: Golden Gate Bridge, Highway, and Transportation District

DOT Project Manager: P. Fish, UPM-30, 426-4984

Project Objective:

To organize commuter hitchhiking program

Completed Reports:

None.

Battery Bus Evaluation

Time Frame: July, 1980 - August, 1981

Funding Amount: \$264,000

Contractor/Grantee: Roosevelt Island Development Corporation  
Roosevelt Island, New York

DOT Project Manager: John E. Ridgley, UTD, 426-8483

Project Manager:

To evaluate and document the performance of battery buses while being operated in revenue service.

Completed Reports:

None.

Diesel Taxi Evaluation

Time Frame: June, 1976 - April, 1979

Funding Amount: UMTA, \$480,000; OST, \$300,000

Contractor/Grantee: Pace Project, Inc., Bronx, New York

DOT Project Manager: John E. Ridgley, UTD, 426-8483

Project Objective:

To assess the potential improvements in fuel economy and exhaust emissions by using diesel engines in taxi fleets in a large urban area.

Flywheel Energy Storage - Phase I

Time Frame: October, 1976 - October, 1977

Funding Amount: \$675,000

Contractor/Grantee: General Electric Company, Schenectady, NY  
Garrett-AiResearch, Torrance, CA

DOT Project Manager: J.F. Campbell, UTD, 426-4035

Project Objective:

To identify Flywheel Energy Storage System design concepts that may be applied to a spectrum of urban transit vehicles that are both technically feasible and economically viable.

Completed Reports:

UMTA-CA-06-0106-77-1  
UMTA-CA-06-0106-77-2  
UMTA-CA-06-0106-77-3  
UMTA-CA-06-0106-77-4  
UMTA-CA-06-0106-77-5  
UMTA-NY-06-0062-77-1

Flywheel Energy Storage - Phase II (Joint DOT/DOE)

Time Frame: November, 1978 - May, 1983

Funding Amount: \$15,312,000

Contractor/Grantee: Transportation Systems Center  
General Electric Company, NY  
Garrett-AiResearch, CA

DOT Project Manager: J. F. Campbell, UTD, 426-4035

Project Objective:

Design, fabricate, test and evaluate and engineering prototype model FESS in a 40-foot urban bus.

Completed Reports:

None.

Gas Turbine Bus Demonstration - (Joint DOE/DOT)

Time Frame: April, 1978 - 1985

Funding Amount: DOT, \$2.8M; DOE, \$11.2M

Contractor/Grantee: NASA-Lewis  
Booz Allen and Hamilton  
Detroit Diesel Allison  
Metropolitan Transit Authority  
Baltimore, Maryland

DOT Project Manager: J.F. Campbell, UTD, 426-4035

Project Objective:

Evaluate the relative merits of a gas turbine engine and its ability to operate on synthetic fuels in a transit operation.

Completed Reports:

None.



Energy Storage Propulsion System for Rapid Rail Cars

Time Frame: July, 1971 - October, 1978

Funding Amount: \$1,264,000

Contractor/Grantee: NYCTA/Garrett Corporation

DOT Project Manager: J. Mora, UTD, 426-0090

Project Objective:

To demonstrate the technical feasibility of energy storage flywheels on NYCTA rapid transit vehicles.

Completed Reports:

Energy Storage Propulsion System for Rapid Transit Cars, UMTA-NY-06-0006-78-1, October, 1978.

Energy Storage Propulsion Systems for Rapid Transit Cars - System Design Equipment Description, PB-249-063/AS, September 1975.

Stored Energy (Flywheel) Propulsion for Rapid Rail Cars, PB-249-063, 1975.

Flywheel Propulsion Simulation

Time Frame: May, 1977

Contractor/Grantee: Alexander Kusko, Inc.

DOT Project Manager: TSC

Project Objective:

To simulate the characteristics and energy savings of flywheels on rail transit vehicles.

Completed Reports:

Flywheel Propulsion Simulation - Final Report

Advance Propulsion Technology Assessment

Time Frame: October, 1978 - May, 1978

Funding Amount: \$150,000

Contractor/Grantee: MITRE Corporation

DOT Project Manager: L. Tucker, UTC, 426-0090

Project Objective:

To evaluate the state-of-the-art of rail transit propulsion technology to identify opportunities for cost and energy saving technologies.

Completed Reports:

The Status of Advanced Propulsion Systems for Urban Rail Vehicle, UMTA-VA-06-0053-79-1, May 1979.

Public Transportation and Energy

Time Frame: March 1978 - August 1979

Funding Amount: \$75,000

Contractor/Grantee: System Design Concepts

DOT Project Manager: Cindy Burbank, UPP-30, 426-4060

Project Objective:

To assess the relative energy efficiency of various modes and policy recommendations of ways to make the systems more energy efficient.

Fare and Service Improvements

Time Frame: December, 1978 - June, 1981

Funding Amount: \$450,000

Contractor/Grantee: City of Knoxville

DOT Project Manager: V. Milione, UPM-30, 426-4984

Project Objective:

To project consists of five price and service demonstration phases, with each phase catering to a specific transit market segment and to the resolution of a specific transportation problem. The phases are:

1. merchant validation for transit fares
2. taxi feeder service in suburbs
3. a downtown fare-free zone
4. improved downtown transit circulation
5. the expansion of the fare-free zone to commercial areas

Completed Reports:

None.

Energy Contingency Planning Prototype

Time Frame: May 31, 1978 - January, 1980

Funding Amount: \$75,000

Contractor/Grantee: Mid-America Regional Council, Kansas City, MO

DOT Project Manager: R. Steinmann, 426-2360-  
UPM-13

Project Objective:

Develop a prototype transportation energy contingency plan for the Kansas City metropolitan area. This plan will serve as an example for other areas interested in undertaking similar studies.

Completed Reports:

Interim Energy Contingency Plan for the KCMR, June 1979, available from MARC

Energy Contingency Planning Prototype

Time Frame: July 1, 1979 - January, 1980

Funding Amount: \$70,000

Contractor/Grantee: North Central Texas Council of Governments  
Arlington, Texas

DOT Project Manager: R. Steinmann, UPM-13, 426-2360

Project Objective:

To further develop energy planning at NCTCOG looking at use of school buses and taxis in energy emergencies. The resulting plans will be available to other areas as examples of planning in this area.

Completed Reports:

None.

Energy Contingency Planning Workshops

Time Frame: July 1, 1979 - August, 1979

Funding Amount: \$30,000

Contractor/Grantee: NCTCOG (Dallas - Ft. Worth), SCRTD (LA), PSCOG (Seattle),  
APTA, WashCOG, MATA (Memphis)

DOT Project Manager: R. Steinmann, UPM-13, 426-2360

Project Objective:

To hold 5 workshops across the country to share experiences in energy contingency planning of those areas which have done such planning.

Completed Reports:

Transportation Energy Contingency Planning: Local Experiences,  
June 1979, USDOT. Available from U.S. DOT, UPM-13, HHP-31, or I-25

Urban Transportation Energy Accounts, Analysis and Methods

Time Frame: July 1978 - June 1979

Funding Amount: \$79,426

Contractor/Grantee: University of Illinois, Urbana-Champaign

DOT Project Manager: Phil Hughes, UPP-31, 426-0080

Project Objective:

The objective of this research project is to produce a major case study for the Chicago region including analysis of general relationships of transportation energy consumption to the mix of transit services and land use patterns, an analysis of the effect of an alternative mix of services in one corridor and a procedural manual for conducting such analyses that will be applicable to conducting alternatives analysis and evaluation of urban transportation plans.

What are the Total Energy Advantages of Public Transportation?

Time Frame: October, 1978 - September, 1979

Funding Amount: \$70,494

Contractor/Grantee: Polytechnic Institute of NY

William McShane, Associate Professor

DOT Project Manager: Phil Hughes, UPP-31, 426-0080

Project Objective:

This project will attempt to document the energy conservation advantages of public transportation--not just by modal effectiveness, but by total impact and energy burden--in a way that will clarify all the energy related issues which must be considered. Among the fields of study will be state of the art and issues, scenarios and factors to be considered, related issues and analysis techniques.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

Interactions Between National Energy Supply and Transportation-  
Related Energy Consumption

Time Frame: September, 1978 - August, 1979

Funding Amount: \$56,200 (\$5,780 matching funds)

Contractor/Grantee: Dartmouth College

DOT Project Manager: Louise Skinner, HHP-22, 426-0182

Project Objective:

Because almost all of the transportation fleet uses liquid fuel, the rapid depletion of fuel reserves will greatly affect the future price and availability of energy. Conversion of the fleet to new propulsion systems or increases in liquid fuel produced from other sources (e.g., coal or bio-mass) might relieve the problem, but with long time delays. This research will analyze alternative policies regarding national energy supply in terms of their long-term impacts on the use of transportation services and on the consumption of energy.

Completed Reports:

None.

Energy Management for Electric Powered Transportation Systems

Time Frame: June, 1976 - August, 1980

Funding Amount: 1976 - \$95,840 (\$10,681 matching funds)

1977-78 - \$75,000 (\$7,993 matching funds)

1979 - \$44,563

Contractor/Grantee: Carnegie-Mellon University

DOT Project Manager: John B. Hopkins, DTS-473

Project Objective:

To further the state-of-the-art of energy management of electric powered transportation systems. This includes the process of understanding the significant factors in the determination of the energy requirements of such systems, their inter-relationships to variables of equipment design and operating practices, and the utilization of this understanding to determine the cost-benefit of energy consumption reduction strategies.

Completed Reports:

None.

Transportation Energy Consumption and Urban Form Relationship

Time Frame: May, 1975 - August, 1978

Funding Amount: 1975 - \$42,000 (\$1,800 matching funds)  
1976 - \$29,852 (\$4,204 matching funds)

Contractor/Grantee: Northwestern University

DOT Project Manager: Helen Doo, P-30, 426-4303

Project Objective:

To develop and apply an integrated model of land-use/transportation relationships for the assessment of alternative energy policies, with special emphasis placed on exploring the energy implications of alternative urban spatial structures and the land-use implications of various transportation energy policies.

Completed Reports:

Final report available from NTIS, publication no. PB 282241/AS (Price \$9.25).

Evaluation of Achievable Internal Combustion Engine Economy And Emissions Performance by Improved Engine Control

Time Frame: July, 1977 - July, 1979

Funding Amount: 1977 - \$75,705 (\$8,512 matching funds)  
1978 - \$89,000 (\$3,500 matching funds)

Contractor/Grantee: Princeton University

DOT Project Manager: Herbert H. Gould, DTS-323

Project Objective:

Current trends for improving fuel economy include the optimization of engine control parameters (such as air-fuel ratio, spark advance, and exhaust gas recirculation) at a number of relevant engine speed-torque points in the steady state. The role of the dynamic scatter of air-fuel ratio and spark timing on engine performance has not, however, been established. This research is to establish by experiment the variability of the above engine parameters; identify the improvements in fuel economy that can be obtained by improving dynamic control; and define the technically feasible engine control elements that would yield improved fuel economy within the constraints of manufacturability, drivability, and compatibility with presently projected engine control and emission control systems.

Completed Reports:

None.

The Influence of Coal Transport Costs on the Optimal Distribution and the Optimal Location of Electric Power Generating Plants

Time Frame: August, 1978 - August, 1979

Funding Amount: 1978 - \$46,765 (\$2,927 matching funds)

Contractor/Grantee: West Virginia University

DOT Project Manager: Byron Nupp, P-11, 426-4447

Project Objectives:

This research will attempt to define optimal regional coal markets to best serve the Nation's rising energy needs. The analysis will support the thesis that real world conditions illustrated by spacial differentiation can be more thoroughly understood following careful theoretical generalization and empirical estimates.

Completed Reports:

None.

Purdue Automotive Research Program

Time Frame: January, 1979 - January, 1980

Funding Amount: \$160,000

Contractor/Grantee: Purdue University

DOT Project Manager: R. Husted, DPB-25, 426-2022

Project Objective:

Conduct transportation transition path analysis related to new energy resources in the next 25 years and investigate diesel engine emissions.

Completed Reports:

None.

Transportation-Energy Research

Time Frame: January, 1978 - January, 1980

Funding Amount: \$80,000

Contractor/Grantee: Transportation Systems Center

DOT Project Manager: R. Husted, DPB-25, 426-2022

Project Objective:

Develop data based on alternative fuel and conservation options for transportation.

Completed Reports:

- Energy in Transportation
- Freight Transportation Energy Use, Volumes 1 through 4
- Freight Transportation Petroleum Conservation Opportunities

Modelling and Dynamic Control of Internal Combustion Engines

Time Frame: September, 1979 - August, 1980

Funding Amount: \$87,100

Contractor/Grantee: Massachusetts Institute of Technology, Dr. Paul Houpt

DOT Project Manager: R. Husted, DPB-25, 426-2022

Project Objective:

This research is a three-phase effort on both theoretical and experimental modelling and control of spark ignition engines during transient speed and load changes. The focus is directed at optimizing fuel economy subject to performance and exhaust emission (HC, CO & NO) constraints during transient operation comparable to the driving cycle in the EPA Federal test procedures.



NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Fuel Economy R&D Contracts: Engineering

Power Plant Evaluation (RA-76-23)

Time Frame: March 1976 - June 1978

Funding Amount: \$75,000

Contractor/Grantee: U.S. ERDA, Bartlesville, OK

Project Objective:

Reports on the tests of 23 EPA certified engines which describe the fuel economy and emission characteristics over the entire load/speed operating range.

Confirmation of Automobile Drivetrain Components (TSC-1046)

Time Frame: June 1976 to March 1978

Funding Amount: \$96,457

Contractor/Grantee: Arthur D. Little Co., Cambridge, MA

Project Objective:

Report on testing of various drivetrain components to verify the effect on fuel economy.

Passenger Car Spark Ignition Engine Data Base (TSC-1269)

Time Frame: September 1976 - July 1978

Funding Amount: \$486,257 (FY76T) \$162,362 (FY78)

Contractor/Grantee: Volkswagenwerk, Wolfsburg, W. Germany

Project Objective:

Data base for production engine family for use in 2,000 to 3,000 pound passenger vehicles.

Power Plan Evaluation (extension of above) (RA-77-7)

Time Frame: March 1977 - March 1979

Funding Amount: \$105,000 (FY77) \$145,000 (FY78)

Contractor/Grantee: U.S. ERDA, Bartlesville, OK

Project Objective:

Reports on the tests of 23 EPA certified engines which describe the fuel economy and emission characteristics over the entire load/speed operating range.

Non-Passenger (NPA) Vehicle Weight Reduction Evaluation (TSC-1451)

Time Frame: September 1977 - August 1978

Funding Amount: \$189,864 (FY 77)

Contractor/Grantee: Pioneer Engineering and Manufacturing Co., Warren, MI

Project Objective:

Report on weight reduction potentials of non-passenger vehicles of GVW ratings up to 10,000 pounds.

Contact for all projects: Samuel Powel, Technology Assessment Division,  
NRD-13 202/426-2957.

Passenger Car Spark Ignition Data Base (TSC-1421)

Time Frame: September 1977 - March 1979

Funding Amount: \$617,526 (FY 77) \$15,147 (FY 78)

Contractor/Grantee: Chrysler Corporation, Detroit

Project Objective:

Data base for large displacement 6- and 8-cylinder spark-ignition engines for use in 3,000 to 4,000 pound passenger vehicles and light trucks.

Passenger Car Spark Ignition Data Base (TSC-1422)

Time Frame: September 1977 - March 1979

Funding Amount: \$468,622 (FY 77)

Contractor/Grantee: FIAT Centro Recherche, Obassano, Italy

Project Objective:

Data base for small displacement 4-cylinder spark-ignition engines (without turbocharging) for use in 3,000 to 3,250 pound vehicles.

Light Weight Automotive Diesel Data Base (TSC-1423)

Time Frame: September 1977 - June 1979

Funding Amount: \$344,342 (FY 77) \$630,500 (FY 79)

Contractor/Grantee: Chrysler Corporation, Detroit

Project Objective:

Data base for large displacement 6-cylinder diesel engine for 5- and 6-passenger vehicles.

Augmentation of Research and Analysis Capabilities for Timely Support of Automotive Fuel Economy Activities (HS-7-01790)

Time Frame: September 1977 - September 1978

Funding Amount: \$249,033 (FY 77) \$124,100 (FY 78)

Contractor/Grantee: South Coast Technology, Santa Barbara, CA

Project Objective:

Reports providing research and analysis support for the evaluation of issues and questions arising out of the implementation of the automotive fuel economy standards.

Augmentation of Research and Analysis Capabilities for Timely Support of Automotive Fuel Economy Activities (HS-7-01789)

Time Frame: September 1977 - March 1978

Funding Amount: \$297,011 (FY 77) \$45,320 (FY 78)

Contractor/Grantee: Corporate-Tech Planning, Watham, MA

Project Objective:

Reports providing research and analysis support for the evaluation of issues and questions arising out of the implementation of the automotive fuel economy standards.

Contact for all projects: Samuel Powel, Technology Assessment Division, NRD-13 202/426-2957.

Review of Procedures for Determining Average Fuel Economy (HS-7-01771)

Time Frame: September 1977 to April 1979

Funding Amount: \$126,344 (FY 77)

Contractor/Grantee: EIC Corporation, Newport, MA

Project Objective:

A statistical framework for determining the distribution characteristics of automobile fuel economy and establishing the average fuel economics by manufacturers.

Study of Automotive Engine Optimization with Closed Loop Control (TSC-1466)

Time Frame: November 1977 - February 1979

Funding Amount: \$66,950 (FY 78)

Contractor/Grantee: Stanford University, Stanford, CA

Project Objective:

Report on the study of closed loop control on spark advance and A-F ration to achieve an optimum control strategy for spark-ignition engines, and the potential for automatic knock limit control in achieving higher engine efficiency.

Light Weight Automotive Diesel Data Base (TSC-1424)

Time Frame: November 1977 to September 1979

Funding Amount: \$488,658 (FY 78)

Contractor/Grantee: FIAT Centro Richercho, Obassaro, Italy

Project Objective:

Data base on a family of production light weight European design diesel engines.

Passenger Car Spark Ignition Data Base (TSC-1420)

Time Frame: November 1977 - March 1979

Funding Amount: \$495,072 (FY 78)

Contractor/Grantee: Volkswagenwerk, Wolfsburg, W. Germany

Project Objective:

Data base for small displacement, high horsepower, turbocharged spark-ignition passenger car engine.

Measure Rolling Loss of 12 Experimental Tires (TS-14896)

Time Frame: December 1977 - February 1978

Funding Amount: \$10,000 (FY 78)

Contractor/Grantee: Calspan Corporation, Buffalo, NY

Project Objective:

Provide data for tire rolling loss handbook on experimental future tires.

Contact for all projects: Samuel Powel, Technology Assessment Division,  
NRD-13 202/426-2957

Non-Passenger Vehicle Weight Reduction Evaluation (TSC-1467)

Time Frame: December 1977 - February 1979

Funding Amount: \$299,852 (FY 78)

Contractor/Grantee: ITT Research Institute, Chicago, IL

Project Objective:

Report on the weight reduction potential of non-passenger vehicles of GVWR up to 10,000 pounds through design modification redesign and materials substitution.

Assessment of Automobile Reciprocating Engine Fuel Economy and Emissions Research (TSC-1481)

Time Frame: December 1977 - August 1978

Funding Amount: \$17,127 (FY 78)

Contractor/Grantee: Aerodyne Research, Inc., Bedford, MA

Project Objective:

Report on assessment of current and required engine research programs to ascertain fundamental limits of fuel economy and emissions.

Rolling Loss of Truck Tires (TS-15139)

Time Frame: April 1978 - March 1978

Funding Amount: \$500 (FY 78)

Contractor/Grantee: Calspan Corporation, Buffalo, NY

Project Objective:

Provide data for tire rolling loss handbook on experimental future tires.

Assessment of Environmental Impacts of Light Duty Vehicle Dieselization (TSC-1530)

Time Frame: April 1978 - January 1979

Funding Amount: \$72,916 (FY 78)

Contractor/Grantee: The Aerospace Corporation, El Segundo, CA

Project Objective:

Report identifying potential environmental impacts resulting from the operation of light duty diesel power vehicles in the urban environment.

An Independent Assessment of the Three-Way Catalyst (HS-8-01912)

Time Frame: April 1978 - June 1979

Funding Amount: \$233,597 (FY 78)

Contractor/Grantee: Citizens for Clean Air, Inc., New York City, NY

Project Objective:

Report on the 3-way catalyst in reducing emissions and improving fuel economy as studied by an independent non-automobile associated organization.

Contact for all projects: Samuel Powel, Technology Assessment Division, NRD-13 202/426-2957.

Evaluation of Advanced Automotive Transmissions (TSC-1508)

Time Frame: May 1978 - June 1979

Funding Amount: \$200,000 (FY 78) \$233,762 (FY 79)

Contractor/Grantee: Southwest Research Institute, San Antonio, TX

Project Objective:

Data base on the performance of a prototype hydromechanical continuously variable transmission.

Evaluation of Advanced Automotive Transmissions (TSC-1509)

Time Frame: May 1978 - June 1979

Funding Amount: \$200,000 (FY 78) \$170,530 (FY 79)

Contractor/Grantee: Arthur D. Little, Co., Cambridge, MA

Project Objective:

Data base on the performance of prototype 4-speed automatic lock-up transmission.

Study of Small Internal Combustion Engine Noise (TSC-1242)

Time Frame: June 1978 - December 1978

Funding Amount: \$71,530 (FY 78)

Contractor/Grantee: Calspan Corporation, Buffalo, NY

Project Objective:

Report on practical noise control systems and their effect on fuel economy, and establish the current state of the art in diesel emissions and identify research needs for further studies.

Investigation of Compression Ignition Power Plant Parametric Trade-Offs (TSC-1545)

Time Frame: June 1978 - June 1980

Funding Amount: \$225,000 (FY 78) \$301,678 (FY 79)

Contractor/Grantee: Ricardo Consulting Engineers, West Sussex, England

Project Objective:

Report on the means of achieving the lowest possible gaseous emissions from a light duty diesel.

Evaluation of the Influence of Ambient Temperature and Engine and Axle Lubricants on Fuel Economy (RA-78-19)

Time Frame: September 1978 - July 1979

Funding Amount: \$75,000 (FY 77)

Contractor/Grantee: U.S. DOE, Bartlesville, OK

Project Objective:

Report on the effects to fuel economy of various lubricants over the U.S. temperature range by actual environmental chassis testing.

Contact for all projects: Samuel Powel, Technology Assessment Division, NRD-13 202/426-2957.

TSC R&D Support Program (PPA-HS-917)

Funding Amount: \$1,217,000 (FY 79)

Contractor/Grantee: Transportation Systems Center, Cambridge, MA

Project Objective:

Conduct assessment on fuel economy improvements in vehicle components and systems to determine trade-offs in emissions, health effects, and cost.

Review and Evaluation of Automotive Fuel Economy Conservation Technologies (HS-9-02111)

Funding Amount: \$155,000 (FY 79) \$150,000 (FY 80)

Contractor/Grantee: South Coast Technology, Inc., Santa Barbara, CA

Project Objective:

Reports providing research and analysis support for questions arising from the implementation of the automotive fuel economy standards.

Review and Evaluation of Automotive Fuel Economy Conservation Technologies (HS-9-02112)

Funding Amount: \$190,000 (FY 79) \$150,000 (FY 80)

Contractor/Grantee: ITT Research Institute, Chicago, IL

Project Objective:

Reports providing research and analysis support for questions arising from the implementation of the automotive fuel economy standards.

Review and Evaluation of Automotive Fuel Economy Conservation Technologies (HS-9-02110)

Funding Amount: \$341,000 (FY 79) \$110,000 (FY 80)

Contractor/Grantee: Corporate Tech Planning, Waltham, MA

Project Objective:

Reports providing research and analysis support for questions arising from the implementation of the automotive fuel economy standards.

Contact: Samuel Powel, Technology Assessment Division, NRD-13,  
202/426-2957.

Fuel Economy R&D Contracts: Industrial

Satisfaction of the Automotive Fleet Fuel Demand and Its Impact on the Oil Refinery Industry (TSC-1064)

Time Frame: June 1976 - June 1978

Funding Amount: \$94,890/\$185,147 (FY 76T)

Contractor/Grantee: Stanford Research Institutes, Menlo Park, CA

Project Objective:

Forecasting model of fuel demand impact on the oil refinery industry.

Automotive Manufacturing Assessment System (TSC-1305)

Time Frame: October 1976 - February 1977

Funding Amount: \$74,572 (FY 76T)

Contractor/Grantee: Corporate-Tech Planning, Inc., Waltham, MA

Project Objective:

Computerized system and analytical tools to assess the capability of the auto industry to produce fuel efficient automobiles.

Automotive Manufacturing Corporate Cost Study (TSC-1311)

Time Frame: November 1976 - November 1978

Funding Amount: \$44,400 (FY 76T)

Contractor/Grantee: H.H. Aerospace Design Co., Bedford, MA

Project Objective:

Report on the cost-revenue analysis of the four major U.S. automotive manufacturers for years 1971 through 1975.

Impacts of Fuel Economy Standards for Passenger Cars and Light Trucks (TSC-1311)

Time Frame: November 1976 - November 1978

Funding Amount: \$19,450 (FY 76T)

Contractor/Grantee: EIC Corporation, Newton, MA

Project Objective:

Report on the relationship between automobile characteristics, list prices and profit margins.

Automobile Manufacturer Financial Data Development (TSC-1047)

Time Frame: January 1977 - June 1978

Funding Amount: \$94,984 (FY 77)

Contractor/Grantee: Arthur D. Little, Inc., Cambridge, MA

Project Objective:

Report on the financial data base, its analysis, and the sensitivity to future change for the four major U.S. automobile manufacturers.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Automotive Manufacturing Cost Analysis (RA-77-9)

Time Frame: January 1977 - August 1978

Funding Amount: \$30,000 (FY 77)

Contractor/Grantee: U.S. - N.A.S.A.; Pasadena, CA

Project Objective:

Report on the manufacturing cost analysis of the automotive cost data for the 1975 Chevelle for determining consistency of data and developing general costing relationships.

Manufacturing Technology Assessment (TSC-1045)

Time Frame: March 1977 - August 1978

Funding Amount: \$43,411 (FY 76T) \$48,645 (FY 77) \$98,850 (OST)

Contractor/Grantee: Pioneer Engineering and Manufacturing Co., Warren, MI

Project Objective:

Report on the elements of cost which make up the manufacturing costs of an automotive vehicle.

Automotive Manufacturers Cost Revenue, Financial and Risk Analysis (TSC-1333)

Time Frame: June 1977 - July 1978

Funding Amount: \$103,977 (FY 77)

Contractor/Grantee: H.H. Aerospace, Bedford, MA

Project Objective:

Report on the historical and projected cost/revenue analysis of U.S. automotive manufacturers and an assessment of the corporate financial position and risk imposed by the Automotive Fuel Economy Standards.

Update and Expand The Automotive Manufacturing Assessment System (TSC-1383)

Time Frame: June 1977 - September 1978

Funding Amount: \$139,922 (FY 77)

Contractor/Grantee: Corporate Tech Planning, Inc., Waltham, MA

Project Objective:

Continuation and update of the TSC Automotive Manufacturing Assessment Systems.

Corporate Strategies of Automotive Manufacturers (HS-7-01783)

Time Frame: September 1977 - April 1979

Funding Amount: \$50,000 (FY 77) \$389,056 (FY 78)

Contractor/Grantee: Harbridge House Inc., Boston, MA

Project Objective:

Report on the means for assessing the corporate decision making process for domestic and foreign automobile manufacturers.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.



Corporate Strategies of Automotive Manufacturers (HS-7-01784)

Time Frame: October 1977 - April 1979

Funding Amount: \$51,000 (FY 77) \$162,240 (FY 78)

Contractor/Grantee: The Future Group, Glastonbury, CT

Project Objective:

Report on the means for assessing the corporate decision making process for domestic and foreign automobile manufacturers.

Financial Information on the Foreign Subsidies of U.S. Automobile Manufacturers (TS-14751)

Time Frame: November 1977 - May 1978

Funding Amount: \$9,752 (FY 78)

Contractor/Grantee: Buttles Corporation, New York, NY

Project Objective:

Report on the financial holdings and dealings of the U.S. automobile manufacturers.

Report on the Car Replacement Parts Market of Six West European Countries (TS-15060)

Time Frame: July 1978 - July 1978

Funding Amount: \$17,000 (FY 78)

Contractor/Grantee: The Economic Intelligence Unit, Ltd, New York, NY

Project Objective:

Purchase of a series of reports on the European Car Parts Market.

Automotive Maintenance Data Base for 1976 to 1978 Model Years (TSC-1515)

Time Frame: August 1978 - April 1979

Funding Amount: \$78,000 (FY 78)

Contractor/Grantee: Chilton Catalog Division, Radnor, PA

Project Objective:

Information to update present automotive maintenance data base.

Japanese Economic Statistics and Information (TSC-1616)

Time Frame: September 1978 - July 1979

Funding Amount: \$63,100 (FY 78)

Contractor/Grantee: University of Michigan, Ann Arbor, MI

Project Objective:

Bibliography of information sources on the Japanese automobile industry.

TSC R&D Support Program: Fuel Economy/Industrial (PPA-HS-927)

Time Frame: October 1978 - September 1979

Funding Amount: \$547,000 (FY 79)

Contractor/Grantee: U.S. DOT Transportation Systems Center, Cambridge, MA

Project Objective:

Provide assessments of industrial behavior, financial capabilities, manufacturability, and costs at the manufacturer and supplier level.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Assessment of the Automotive Inspection Maintenance and Repair Industry (TSC-1630)

Time Frame: November 1978 - June 1979

Funding Amount: \$91,045 (FY 79)

Contractor/Grantee: Deiss & Associates, Middletown, CA

Project Objective:

Report on the assessment of impact of current and future vehicle regulations on the automotive I/M/R industry.

Acquisition and Analysis of Manufacturing Equipment for Production of a Socially Efficient Motor Vehicle (TSC-1609)

Time Frame: September 1978 - November 1980

Funding Amount: \$272,000 (FY 78) \$61,744 (FY 79)

Contractor/Grantee: Booz, Allen and Hamilton, Inc., Bethesda, MD

Project Objective:

Report on information on the manufacturing processes, and equipment required for mass vehicle production concentrating on the 1978 to 1980 period.

Acquisition and Analysis of Information Relative to Industrial Behavior of the Major National and International Motor Vehicle Manufacturers (TSC-1621)

Time Frame: September 1978 - November 1980

Funding Amount: \$225,000 (FY 78) \$201,033 (FY 79)

Contractor/Grantee: Harbridge House, Inc., Boston, MA

Project Objective:

Report on the behavior and response of national and international automobile manufacturers to government product and economic intervention.

Acquisition and Analysis of Information Relative to Industrial Behavior or the Major National and International Motor Vehicle Materials, Parts, and Components, and Machine Tool Suppliers (TSC-1626)

Time Frame: September 1978 - November 1980

Funding Amount: \$225,000 (FY 78) \$234,384 (FY 79)

Contractor/Grantee: Booz, Allen and Hamilton, Inc., Bethesda, MD

Project Objective:

Report on the behavior and response of the national and international motor vehicle parts, materials and components and machine tool suppliers to government product and economic intervention.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Fuel Economy R&D Contracts: Marketing

Study of Automobile Marketing Strategies, Pricing, and Product Planning (TS-13509)

Time Frame: March 1977 - June 1977

Funding Amount: \$9,996 (FY 77)

Contractor/Grantee: John F. Delorean Co., Bloomfield Hills, MI

Report:

"Automobile Marketing Strategies, Pricing and Product Planning", HS-803-181, 38 pp.

Study of Automobile Marketing Strategies, Pricing, and Product Planning (TS-13632)

Time Frame: March 1977 - September 1977

Funding Amount: \$9,9775 (FY 77)

Contractor/Grantee: ASL Engineering Co., Goleta, CA

Report:

"Automobile Marketing Strategies, Pricing, and Product Planning", GS-803-218, 68 pp.

Automobile Marketing Methodology (TSC-1322)

Time Frame: March 1977 - September 1977

Funding Amount: \$46,400 (FY 77)

Contractor/Grantee: Gilbert R. Green Co., Natick, MA

Report:

"Automotive Marketing Methods and Practices", TSC/613-0060, 137 pp.

Stochastic Analysis of Future Vehicle Populations: An Evaluation of Marketing Effects on Alternative Federal Policies (TS-13729)

Time Frame: April 1977 - June 1978

Funding Amount: \$10,000 (FY 77)

Contractor/Grantee: University of Michigan, Ann Arbor, MI

Report:

"Stochastic Analysis of Future Vehicle Populations", 97 pp.

Study of Consumer Automotive Preference with Respect to Fuel Economy Measures (TSC-1391)

Time Frame: May 1977 - July 1978

Funding Amount: \$36,585 (FY 77)

Contractor/Grantee: Rogers National Research, Toledo, OH

Report:

"Study of Consumer Automotive Preferences with Regard to Fuel Economy Measures", HS-803-547, 40 pp.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Consumer Behavior Towards Fuel Efficiency Vehicles (HS-7-01779)

Time Frame: October 1977 - April 1979

Funding Amount: \$158,552 (FY 77)

Contractor/Grantee: Charles River Associates, Boston, MA

Reports:

Each contractor to deliver 4 reports, titled "Consumer Awareness of Fuel Efficiency Issues", "Consumer Willingness to Trade-Off Particular Passenger Automobile Attributes", "Identification of Non-Passenger Automobile Attributes and Consumer Willingness to Accept Changes in these Attributes" and "Usage Patterns of Non-Passenger Automobiles".

"Consumer Behavior Towards Fuel Efficiency Vehicles (HS-7-01781)

Time Frame: October 1977 - April 1979

Funding Amount: \$93,427 (FY 77), \$23,427 (FY 78), \$20,000 (FY 79), \$50,000 (FY 80).

Reports:

Each contractor to deliver 4 reports, titled "Consumer Awareness of Fuel Efficiency Issues", "Consumer Willingness to Trade-Off Particular Passenger Automobile Attributes", "Identification of Non-Passenger Automobile Attributes and Consumer Willingness to Accept Changes in these Attributes" and "Usage Patterns of Non-Passenger Automobiles".

Consumer Behavior Towards Fuel Efficiency Vehicles (HS-7-01780)

Time Frame: October 1977 - May 1979

Funding Amount: \$210,251 (FY 77), \$5,000 (FY 79)

Contractor/Grantee: Cambridge Systematics, Cambridge, MA

Reports:

Each contractor to deliver 4 reports, titled "Consumer Awareness of Fuel Efficiency Issues", "Consumer Willingness to Trade-Off Particular Passenger Automobile Attributes", "Identification of Non-Passenger Automobile Attributes and Consumer Willingness to Accept Changes in these Attributes" and "Usage Patterns of Non-Passenger Automobiles".

Consumer Behavior Towards Fuel Efficiency Vehicles (HS-7-01782)

Time Frame: October 1977 - May 1979

Funding Amount: \$141,816 (FY 77), \$24,915 (FY 79), \$50,000 (FY 80)

Contractor/Grantee: National Analysts, Philadelphia, PA

Reports:

Each contractor to deliver 4 reports, titled "Consumer Awareness of Fuel Efficiency Issues", "Consumer Willingness to Trade-Off Particular Passenger Automobile Attributes", "Identification of Non-Passenger Automobile Attributes and Consumer Willingness to Accept Changes in these Attributes" and "Usage Patterns of Non-Passenger Automobiles".

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Impacts of Fuel Economy Vehicles on the Consumer (HS-7-01778)

Time Frame: October 1977 - December 1979

Funding Amount: \$183,758 (FY 77)

Contractor/Grantee: Charles River Associates, Boston, MA

Project Objective:

Reports on impact to consumer from fuel economy options.

Transportation Systems Center: R&D Program Support, Marketing (PPA-HS )

Funding Amount: \$125,000 (FY 77)

Contractor/Grantee: TSC, Cambridge, MA

Project Objective:

Study of market analysis, consumer impacts, market trends, vehicle usage, and consumer behavior.

National Vehicle Population Profile Data Base (TSC-1556)

Time Frame: May 1978 - June 1979

Funding Amount: \$32,000 (FY 78) \$20,000 (FY 79)

Contractor/Grantee: R.L. Polk Co., Detroit, MI

Project Objective:

Report and computer tape of National Vehicle Population as of July 1, 1977.

Transportation Systems Center: R&D Program Support, Marketing (PPA-HS- )

Funding Amount: \$365,000 (FY 78)

Contractor/Grantee: T.S.C., Cambridge, MA

Project Objective:

Studies in marketing.

Implications of Lightweight Low Powered, Future Vehicles in the Traffic System (FH-11-9434)

Time Frame: June 1978 - December 1979

Funding Amount: \$75,000 (FY 78)\*

Contractor/Grantee: Midwest Research Institute, Kansas City, MO

Report:

Report (same as contract title) derived from output on simulation models.

\* Contract in conjunction with FHWA who supplied \$123,400.

Contact: Samuel Powell, Technology Assessment Division, NRD-13  
202/426-2957.

Changes in New Motor Vehicle Buyer Attitudes and Market Behavior (TSC)

Time Frame: August 1979 - June 1980

Funding Amount: \$125,000 (FY 79)

Contractor/Grantee: Rogers National Research, Toledo, OH

Project Objective:

Reports on buyer profiles, market class analysis, statistical change analysis, makes and models analysis, based on Model Years 1976 through 1979.

Study of Marketing Tools to Influence the Sales of Fuel Economy Vehicles (NHTSA)

Funding Amount: \$50,000 (FY 79)

Work Statement Being Developed, to be defined.

Transportation Systems Center: R&D Program Support-- Marketing (PPA-HS-927)

Funding Amount: \$440,000 (FY 79)

Contractor/Grantee: T.S.C., Cambridge, MA

Project Objective:

Studies on marketing.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Fuel Economy R&D Contracts: Economics

Automobile Demand Analysis (TSC-1072)

Time Frame: August 1975 - September 1977

Funding Amount: \$145,074 (OST 76), \$31,349 (FY 77)

Contractor/Grantee: E.F.A. Inc., Philadelphia, PA

Project Objective:

Model on forecasting new car sales, existing auto fleet, and domestic auto manufacturing revenues over next 15 years.

Historical LDT Data Base (TS-13780)

Time Frame: March 1977 - November 1977

Funding Amount: \$25,740 (FY 77)

Contractor/Grantee: Chilton Co., Radnor, PA

Project Objective:

Data Collection on light duty truck characteristics for years 1972, and 1975 through 1977.

Technical Analysis of Demand Impacts (TS-13780)

Time Frame: April 1977 - June 1977

Funding Amount: \$9,650 (FY 77)

Contractor/Grantee: Wharton, E.F.A. Inc., Philadelphia, PA

Project Objective:

Subscription and computer service for economic and energy forecasts.

Long Run Macro-Economic Model Use and On-Line Data Base Access (TS-14075)

Time Frame: July 1977 - April 1978

Funding Amount: \$5,000 (FY 77)

Contractor/Grantee: Data Resources, Inc., Lexington, MA

Project Objective:

Subscription and computer service for economic and energy forecasts.

Macroeconomic Forecasts (TSC-1129)

Time Frame: August 1977 - March 1978

Funding Amount: \$10,300 (FY 77), \$7,000 (FY 1978)

Contractor/Grantee: Data Resources, Inc., Lexington, MA

Project Objective:

Subscription and computer services for economic and energy forecasts. Model forecasting auto demand are affected by policy, environment, and auto characteristics.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

Motor Vehicle Demand Analysis (TSC-1435)

Time Frame: September 1977 - March 1979

Funding Amount: \$84,137 (FY 77), \$75,000 (FY 78)

Contractor/Grantee: Wharton, E.F.A. Inc., Philadelphia, PA

Project Objective:

Subscription and computer services for economic and energy forecasts. Model forecasting auto demand are affected by policy, environment, and auto characteristics.

Development of an Historical Data Base for Light Duty Trucks (TSC-1463)

Time Frame: October 1977 - August 1978

Funding Amount: \$50,163 (FY 78)

Contractor/Grantee: Chilton Co., Radnor, PA

Project Objective:

Data collection on light duty truck characteristics for years 1966 to 1974, except 1972.

Support for Analytical Tools for Automotive Fuel Economy Activities (HS-7-01691)

Time Frame: October 1977 - March 1979

Funding Amount: \$46,056 (FY 77)

Contractor/Grantee: H.H. Aerospace Design Co., Bedford, MA

Project Objective:

Realtime programming and analytical support and training in the use of analytical tools for automobile fuel economy activities.

Impact of Automotive Fuel Economy Standards on Competition in the Automotive Industry (HS-7-01786)

Time Frame: October 1977 - April 1979

Funding Amount: \$190,025 (FY 77)

Contractor/Grantee: Charles River Associates, Cambridge, MA

Project Objective:

A means for assisting competition in domestic and foreign auto manufacturers by market sales.

Impact of Automotive Fuel Economy Standards on Competition in the Automotive Industry (HS-7-01787)

Time Frame: October 1977 - April 1979

Funding Amount: \$212,358 (FY 77)

Contractor/Grantee: A.T. Kearney, Inc., Washington, D.C.

Project Objective:

A means for assessing competition in domestic and foreign auto manufacturers by demand projections and market analysis.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.



Support for Analytical Tools for Automotive Fuel Economy Activities  
(HS-7-01708)

Time Frame: October 1977 - October 1979

Funding Amount: \$48,907 (FY 77), \$124,681 (FY 78), \$99,000 (FY 79)

Contractor/Grantee: Automated Sciences Group, Inc., Silver Spring, MD

Project Objective:

Realtime programming and analytical support and training in the use of analytical tools for automobile fuel economy activities.

TSC R&D Fuel Economy Program Support-Economics (PPA-HS-927)

Time Frame: October 1978 - September 1979

Funding Amount: \$426,000 (FY 79)

Contractor/Grantee: DOT/TSC, Cambridge, MA

Project Objective:

Economic analyses, vehicle demand modelling, economic forecasts and assessments of national economic, safety, and air quality impacts.

Assessment and Improvement of Motor Vehicle Demand Models (TSC-1608)

Time Frame: March 1979 - February 1981

Funding Amount: \$100,000 (FY 79)

Contractor/Grantee: Charles River Associates, Boston, MA

Project Objective:

Analysis and improvement of existing motor vehicle demand models with special interest on reliability.

Contact: Samuel Powel, Technology Assessment Division, NRD-13  
202/426-2957.

National Energy Efficient Driving System R&D Contracts

National Energy Efficient Driving System

Time Frame: Concluding June 1980

Funding Amount: \$238,000

Contractor/Grantee: National Public Services Research Institute, Alexandria, VA

Project Objective:

Designed to identify the type of information needed by drivers to achieve more fuel efficient transportation. Areas to be investigated are: personal transportation planning, information on vehicles and components related to improved fuel economy, driving techniques for improved fuel economy, and vehicle maintenance for improved fuel economy.

Energy Efficient Commercial Vehicle Driving System

Time Frame: FY 1978 through 1981

Funding Amount: \$225,000

Contractor/Grantee: Chilton Co., Radnor, PA

Project Objective:

Development of a driver training system to teach commercial drivers fuel efficient driving techniques.

NHTSA Contact: Robert Nicholson, Driver/Vehicle Systems Division  
755-8753

Voluntary Truck and Bus Program R&D Contracts

Owner-Operator Fuel Economy Outreach

Time Frame: FY 1978 through 1981

Funding Amount: \$330,000

Contractor/Grantee: Transportation Advancement, Inc., Fort Lauderdale, FL

Project Objective:

Working with owner-operators and small fleets to demonstrate and provide information on fuel efficient vehicles and procedures; developed the "Double-Nickel Challenges".

SAE-DOT Truck and Bus Fuel Economy Program

Time Frame: FY 1978 through 1981

Funding Amount: \$600,000

Contractor/Grantee: Society of Automotive Engineers, Detroit, MI

Project Objective:

Development and testing of recommended fuel economy test procedures for trucks, buses and vehicular components.

Road Speed Governors

Time Frame: FY 1980 through 1981

Funding Amount: \$250,000

Contractor/Grantee: to be determined

Project Objective:

Test and demonstrate speed control devices to determine the benefits and disbenefits to safety and fuel economy.

Truck Aerodynamics

Time Frame: Concluding Fall 1979

Funding Amount: \$88,500

Contractor/Grantee: University of Maryland

Project Objective:

Comparative tests of aerodynamic devices for use on commercial vehicles.

NHTSA Contact: William Close, Director  
Office of Heavy Duty Vehicle Research  
426-4553

Research Safety Vehicle R&D Contracts

(NOTE: A portion of total contract funding is to enhance fuel economy)

Research Safety Vehicle Phase III

Time Frame: June 1977 - June 1979

Funding Amount: (approximately 23% of funding was applied for fuel economy, \$1,400,000); \$2,950,000 (FY 77), \$2,420,000 (FY 78), \$78,000 (FY 79)

Contractor/Grantee: Calspan Corporation, Buffalo, NY

Project Objective:

Development of a 5 passenger experimental vehicle that will permit occupant survival in 40 to 50 mph crashes. It achieves an average 28.2 mpg.

Research Safety Vehicle Phase III

Time Frame: June 1977 - June 1980

Funding Amount: (approximately 22% of funding was applied for fuel economy, \$2,003,000), \$2,055,000 (FY 77), \$2,070,000 (FY 78), \$3,053,000 (FY 79), \$46,000 (FY 80)

Contractor/Grantee: Minicars, Inc., Goleta, CA

Project Objective:

Development of a 4 passenger experimental vehicle that will permit occupant survival in 50+ mph crashes. It is designed to achieve 34+ mpg.

Two Passenger Integrated Research Vehicle

Time Frame: May 1978 - May 1980

Funding Amount: \$100,000

Contractor/Grantee: Vehicle Research Institute, Western Washington University, Bellingham, WA

Project Objective:

Development of a 2 passenger safety research vehicle based on the 1,500 pound Vehicle Research Institute "Viking 6", a 2 passenger fuel economy vehicle. It will have superior fuel economy while achieving a reasonable level of occupant safety.

Fuel Economy Research for Integrated Vehicle Systems

Time Frame: FY 1979

Funding Amount: \$280,000

Contractor/Grantee: Transportation Systems Center, Cambridge, MA

NHTSA Contact: William Boehly  
Integrated Vehicle Research Division  
426-4832

Identification and Development of Countermeasures for Bicyclist/  
Motor Vehicle Problem Types

Time Frame: October 1977 - October 1980

Funding Amount: \$183,000

Contractor/Grantee: Dunlap and Associates

DOT Project Manager: Al Farina (NRD-42) 426-2977

Project Objective:

To identify countermeasure and to develop for those selected, prototypes in the areas of training courses, safety messages and bicyclists' safety regulations.

Completed Reports:

Report on Phase I is forthcoming.

Pedestrian/Pedal Cyclist Exposure Study - Phase I

Contractor/Grantee: University of Michigan, Highway Safety Research  
Institute

DOT Project Manager: Steve Cohen (NRD-31) 426-1518

Project Objective:

To define pedestrian and pedalcyclist exposure, to develop the data elements that would be useful to collect to measure exposure, and to suggest an approach for collecting and analyzing exposure data.

IV. SEMINARS, WORKSHOPS AND CONFERENCES

o "Energy Considerations in the Urban Transportation Planning Process" will be a three-day state-of-the-art/state-of-the-practice conference on energy conservation and impact analyses techniques within the urban transportation planning process. To be held October 17-19 in Washington, this conference is being sponsored by FHWA and the Department of Energy (DOE). The results of this energy conference will form the groundwork for a second phase of research. In this second phase, studies conducted by individual transportation planning agencies will attempt to implement and evaluate these various approaches/methodologies within an ongoing planning process.

Contact: Bonnie Danel, FHWA, 426-0215  
Office of Urban Planning

o DOT, in cooperation with DOE, has amended a DOE contract with the Massachusetts Institute of Technology on transportation energy contingency planning. The major objectives of Phase I of the project are: to delineate the major components which should be considered by local and State agencies in their development of transportation energy contingency plans for various levels of energy scarcities; to identify the constraints and barriers to the implementation of the identified components and delineation of responsibility for barrier removal; to delineate organizational responsibility and the general process to be undertaken during development of local and State plans; to develop materials resulting from the study which would be used for workshops on this topic; and, to recommend policy, regulatory and/or administrative action which may be required at all levels of government to facilitate the implementation of transportation energy contingency plans.

Phase II of this effort could possibly be the conducting of 4 to 6 workshops for State and local agencies based on the findings and recommendations from Phase I. The determination to proceed with workshops will be made by the project sponsors at the completion of Phase I.

Contact: Richard Steinmann, UPM-13, 426-2360  
Gary Maring, FHWA TSM Branch  
Chief, HHP-32, Washington, D.C. 202/426-0210

o "National Energy Users Conference: Energy Contingency Planning for Transportation." The Department of Energy is sponsoring, in cooperation with DOT and other Federal agencies, a Transportation Research Board series of conferences that will examine various issues in contingency planning. The first conference, to be held in February, 1980, will examine the capability of the transportation industry to respond to a contingency development. The conference will focus on: 1) providing a definition of contingency conditions and of contingency planning; 2) developing insights into the current state of preparedness for contingency conditions; 3) the demand for personal mobility and goods movement; 4) supply conditions that exist given the alternative contingency parameters; 5) the regulatory and policy environment that affects the performance of the transportation sector; and 6) transportation system constraints which limit the ability of the transportation system to effectively deal with emergencies.

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*April*

The conference will also provide participants with the likely sequence of events which would occur under various petroleum emergency scenarios. Experts representing petroleum companies and the Department of Energy's Economic Regulatory Administration and Strategic Petroleum Reserve will detail the various options.

The second of these conferences will use the background information and analysis developed in the first conference to set the stage for 1) examining crucial public and private sector policy agenda implied by the previous discussions; 2) public and private sector budgeting and programming that relate to these policies; and 3) an identification of that planning, research and data needs which, when filled, would significantly improve formulation of policy initiatives and actions subsequently taken. The second meeting is tentatively planned for Spring or Summer, 1980.

Contact: Stephen E. Blake, TRB  
2101 Constitution Avenue, N.W.  
Washington, D.C. 20418  
202/389-6110

o "National Energy Efficient Driving System (TRB Conference Session) This session will describe and discuss what the driver/vehicle purchaser can do to improve their fuel economy in the next ten years. The conference will consider automobiles, light trucks and commercial vehicles. The impact of engineering advances, buyer behavior, personal transportation planning, maintenance practices and driving techniques will be presented. The role of voluntary versus mandatory mechanisms to reduce fuel consumption in the 1980's will be discussed.

Contact: John Eberhard, NHTSA  
426-4892

o "Bicycle Consideration in Urban Areas - An Overview" is a 2½ day training course sponsored by the Federal Highway Administration, National Highway Institute and presented by the Northwestern University Traffic Institute. The primary objective of this program is to provide the participants with the information, skills and tools they used to develop programs and to plan and design bicycle facilities in their respective communities. Presentations of the course are currently scheduled for San Jose, CA, Wisconsin, and Michigan (2) and two additional sites not yet selected.

Contact: Louise Freese (HHI-3)  
426-3100





