



2001 Model Year Patrol Vehicle Testing



U.S. Department of Justice
Office of Justice Programs
National Institute of Justice

2001 Model Year Patrol Vehicle Testing

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The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, Bureau of Justice Statistics, Office of Juvenile Justice and Delinquency Prevention, and Office for Victims of Crime.

Preface

The Michigan State Police Vehicle test team is pleased to announce the results of the 2001 model year police vehicle evaluation. This is our 25th year in conducting the tests. We tested 16 vehicles this year, including 3 nonpublished prototypes from DaimlerChrysler. Registration from the United States and Canada for the test dates continues to grow. We had a variety of weather during testing this year. On one day temperatures were cool and fall-like at our new vehicle dynamics test site, Grattan Raceway; on another day we had sunny skies and warm temperatures. Based on feedback from staff and observers, this facility looks like it will work well in the future. Your participation is important and we appreciate the continued support and encouragement.

The vehicles evaluated this year were:

| | |
|----------------------------|-------------------------------|
| Ford Police Interceptor | 4.6L SPFI |
| Chevrolet Impala | 3.8L SPFI |
| AM General Hummer | 6.5L (Turbo Diesel) |
| Jeep Cherokee | 4.0L MPFI (2–Wheel Drive) |
| Jeep Cherokee | 4.0L MPFI (4–Wheel Drive) |
| Chevrolet Camaro | 5.7L SPFI (Automatic) |
| Chevrolet Camaro | 5.7L SPFI (6–Speed Manual) |
| 2002 Ford Explorer* | 4.0L SPFI (4–Wheel Drive) |
| Ford Expedition* | 5.4L SMFI (4–Wheel Drive) |
| Ford Excursion* | 6.8L SMFI (4–Wheel Drive) |
| Ford Crown Victoria NGV | 4.6L SPFI |
| Chevrolet Tahoe* | 4.8L SPFI (2–Wheel Drive) |
| Chevrolet Tahoe* | 4.8L SPFI (4–Wheel Drive) |

*Special-service package vehicles are not suitable for pursuit or emergency driving, according to the manufacturers. Our vehicle dynamics test is representative of a police pursuit. Please refer to the vehicle dynamics section for further explanation.

We also tested the Dodge Intrepid 3.5L, Durango 4.7L 2WD, and Durango 5.9L 4WD. All three vehicles were prototypes and are not currently available for any police operations. DaimlerChrysler is looking at the possibility of re-entering the law enforcement market. Because these vehicles are prototypes, the testing information is made available to the manufacturer at the test site and not published in our test book.

All of the vehicles were tested with a clean roof (no overhead light or lightbar) and without “A” pillar mount spotlights. We believe this is the best way to ensure all of the cars are tested on an equal basis. Remember that once overhead lights, spotlights, radio antennas, sirens, and other emergency equipment are installed, overall performance may be somewhat lower than we report.

Each vehicle was tested with the tires that are available as original equipment on the production model. Specific tire information for each vehicle is available in the Vehicle Description portion of this report.

DaimlerChrysler Proving Grounds—Acceleration, Top Speed, and Braking Tests

Since the braking systems on the two Chevrolet Camaros are identical and the test weight of the two vehicles is nearly identical, only the automatic transmission equipped Camaro was submitted for brake testing. During the braking test, the heat-up procedure speed for the Hummer was at 75 mph, instead of 90 mph.

All vehicles were tested with the transmission in “overdrive,” except the Ford Police Interceptor. At

Ford's request, the vehicle was tested in "drive." However, this is contrary to the vehicle manual recommendation of running the vehicle in overdrive during pursuit applications. The Jeeps were driven in "3" and the Chevrolet Camaro 6-speed manual transmission was driven in fifth gear during the top-speed run.

Vehicles equipped with electronic speed limiters are noted in the Acceleration and Top Speed portion of this report.

Grattan Raceway—Vehicle Dynamics (High-Speed Handling) Test

The Chevrolet Tahoes and Ford Explorer, Expedition, and Excursion are special-service vehicles and were not driven through the vehicle dynamics (high-speed handling) test.

The Chevrolet Impala engine stalled during one of the test series. The test driver returned to the pit area. Chevrolet personnel along with our staff were unable to determine what may have caused the problem. We reran the test series without further problems.

We recommend you review the information contained in this report and then apply it to the needs of your agency. This report is not an endorsement of products, but a means of learning what's available for your officers so they can do their job effectively and safely. If anything in this report requires further explanation or clarification, please call or write:

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We wish to thank the following contributors. We are grateful for their support and encouragement toward our ultimate goal: a safe, successful testing program that benefits the law enforcement community nationwide and beyond.

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Lt. Col. Stephen D. Madden, Deputy Director, Uniform Services Bureau.

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James Fiore, Roy Margenau, Jr., and personnel from DaimlerChrysler Proving Grounds.

Sam Faasen and personnel from Grattan Raceway Park.

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Michigan State Police Ergonomic Evaluators: Tpr. Greg Galarneau, Tpr. David Fast, Tpr. Alan Fouty, Tpr. Kevin Beasley, Ofc. Niki Brehm, Tpr. Sandy Larsen, Sgt. Frank Mraz, Tpr. Jerry Hietala, Tpr. Carl Brice, and Tpr. Scott Carlson.

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Special thanks to Chevrolet, DaimlerChrysler, and Ford vehicle manufacturers for their hard work in building and preparing the test cars. We are grateful for their dedication to law enforcement. Law enforcement looks to these vehicles every day to do a list of duties varied and enduring.

Finally, thanks to all in the United States and Canada who represent law enforcement and purchasing agencies for your constant encouragement and support. We are proud to make a contribution to the law enforcement community.

Michigan State Police Vehicle Test Team

AutoBid

Software Helps Select Vehicles

Staff of the Office of Law Enforcement Standards (OLES) has created a computer program for the National Institute of Justice (NIJ) to help police fleet managers select vehicles that are best suited to their needs. The program, called AutoBid, is based on the Michigan State Police vehicle performance test data.

AutoBid is designed to help police fleet administrators select the patrol vehicle that is best suited to the needs of their department. The system is based on vehicle performance test data for police patrol package models published annually by the Michigan State Police.

AutoBid helps fleet managers select the best patrol vehicle based on vehicle test scores. It identifies which vehicle has the highest overall test performance and ranks the vehicles according to their relative performance. The overall performance score of a vehicle is based on each test score weighted by the importance weight for each test category assigned by the user. The overall performance score is particularly helpful when an evaluation is needed before a request for bids has been prepared. The performance analysis can be used to determine which models warrant a request for bids.

AutoBid is available both as an application and as an applet. The AutoBid Application does not require you to be connected to the Internet while it is running and will run on any operating system. To use the AutoBid Application you must first download and install the Java Runtime Environment onto your computer. Then you need to download and install the AutoBid Application.

The AutoBid Applet can be viewed via a Java-capable Web browser and requires an Internet connection. Please note that the Applet is 662 KB and may take a few minutes to load over a modem. Future versions of AutoBid will include an additional method of vehicle selection using a combined score based on both vehicle cost and test scores. This method will identify which vehicle is the "Best Buy" in terms of the lowest cost for equivalent test performance and ranks the vehicles by the bid price adjusted for performance. Due to major revisions that are currently underway, AutoBid will not be available for the 2001 model year. We currently anticipate that the new version of AutoBid will be available for the 2002 model year test results.

Table of Contents

| | |
|--|------|
| Preface | iii |
| Acknowledgments | v |
| AutoBid | vi |
| About the National Institute of Justice | ix |
| About the Law Enforcement and Corrections Standards and Testing Program | xi |
| About the National Law Enforcement and Corrections Technology Center System | xiii |
| About the Office of Law Enforcement Standards | xv |
| Test Equipment | xvi |
| Test Vehicle Descriptions and Photographs | 1 |
| Test Vehicle Descriptions Summary | 18 |
| Vehicle Dynamics Testing | 21 |
| Test Objective and Methodology | 22 |
| Test Facility Diagram | 23 |
| Test Data | 24 |
| Test Data Comparison Chart..... | 26 |
| Acceleration, Top Speed, and Brake Testing | 27 |
| Test Objectives and Methodologies | 28 |
| Test Facility Diagram | 30 |
| Summary of Acceleration, Top Speed, and Brake Testing Data | 31 |
| Acceleration and Top Speed Test Data Comparison Charts..... | 33 |
| Acceleration and Top Speed Test Data..... | 35 |
| Brake Test Data Comparison Chart | 39 |
| Brake Test Data..... | 40 |
| Ergonomics and Communications Evaluation | 47 |
| Test Objective and Methodology | 48 |
| Test Data Comparison Chart..... | 49 |
| Test Data | 50 |
| Fuel Economy Evaluation | 53 |
| Test Objective and Methodology | 54 |
| Test Data | 54 |
| Test Data Comparison Chart..... | 55 |
| Michigan State Police Scoring and Bid Adjustment Methodology | 57 |
| Appendix I: Performance Comparisons of 2000 and 2001 Test Vehicles | 59 |
| Appendix II: Special-Service Vehicles | 67 |

About the National Institute of Justice

The National Institute of Justice (NIJ), a component of the Office of Justice Programs, is the research agency of the U.S. Department of Justice. Created by the Omnibus Crime Control and Safe Streets Act of 1968, as amended, NIJ is authorized to support research, evaluation, and demonstration programs, development of technology, and both national and international information dissemination. Specific mandates of the Act direct NIJ to:

- Sponsor special projects and research and development programs that will improve and strengthen the criminal justice system and reduce or prevent crime.
- Conduct national demonstration projects that employ innovative or promising approaches for improving criminal justice.
- Develop new technologies to fight crime and improve criminal justice.
- Evaluate the effectiveness of criminal justice programs and identify programs that promise to be successful if continued or repeated.
- Recommend actions that can be taken by Federal, State, and local governments as well as by private organizations to improve criminal justice.
- Carry out research on criminal behavior.
- Develop new methods of crime prevention and reduction of crime and delinquency.
- Exploring key issues in community policing, violence against women, violence within the family, sentencing reforms, and specialized courts such as drug courts.
- Developing dual-use technologies to support national defense and local law enforcement needs.
- Establishing four regional National Law Enforcement and Corrections Technology Centers (NLECTC), a Border Research and Technology Center, and three special offices to join the National Center in Rockville, Maryland, to form the NLECTC system.
- Strengthening NIJ's links with the international community through participation in the United Nations network of criminological institutes, the U.N. Criminal Justice Information Network, and the NIJ International Center.
- Improving the online capability of NIJ's criminal justice information clearinghouse.
- Establishing the ADAM (Arrestee Drug Abuse Monitoring) program—formerly the Drug Use Forecasting (DUF) program—to increase the number of drug-testing sites and study drug-related crime.

In recent years, NIJ has greatly expanded its initiatives, the result of the Violent Crime Control and Law Enforcement Act of 1994 (the Crime Act), partnerships with other Federal agencies and private foundations, advances in technology, and a new international focus. Examples of these new initiatives include:

The Institute Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the Department of Justice, and the needs of the criminal justice field. The Institute actively solicits the views of criminal justice professionals and researchers in the continuing search for answers that inform public policymaking in crime and justice.

About the Law Enforcement and Corrections Standards and Testing Program

The Law Enforcement and Corrections Standards and Testing Program is sponsored by the Office of Science and Technology of the National Institute of Justice (NIJ), U.S. Department of Justice. The program responds to the mandate of the Justice System Improvement Act of 1979, which directed NIJ to encourage research and development to improve the criminal justice system and to disseminate the results to Federal, State, and local agencies.

The Law Enforcement and Corrections Standards and Testing Program is an applied research effort that determines the technological needs of justice system agencies, sets minimum performance standards for specific devices, tests commercially available equipment against those standards, and disseminates the standards and the test results to criminal justice agencies nationwide and internationally.

The program operates through the following:

- The **Law Enforcement and Corrections Technology Advisory Council (LECTAC)**, consisting of nationally recognized criminal justice practitioners from Federal, State, and local agencies, assesses technological needs and sets priorities for research programs and items to be evaluated and tested.
- The **Office of Law Enforcement Standards (OLES)** at the National Institute of Standards and Technology develops voluntary national performance standards for compliance testing to ensure that individual items of equipment are suitable for use by criminal justice agencies. The equipment standards developed by OLES are based upon laboratory evaluation of commercially available products in order to devise precise test methods that can be universally applied by any qualified testing laboratory and to establish minimum performance requirements for each attribute of a piece of equipment that is essential to how it functions. OLES-developed standards can serve as design

criteria for manufacturers or as the basis for equipment evaluation. The application of the standards, which are highly technical in nature, is augmented through the publication of equipment performance reports and user guides. Individual jurisdictions may use the standards in their own laboratories to test equipment, have equipment tested on their behalf using the standards, or cite the standards in procurement specifications.

- The **National Law Enforcement and Corrections Technology Center (NLECTC)**, operated by a grantee, supervises a national compliance testing program conducted by independent laboratories. The standards developed by OLES serve as performance benchmarks against which commercial equipment is measured. The facilities, personnel, and testing capabilities of the independent laboratories are evaluated by OLES prior to testing each item of equipment. In addition, OLES helps NLECTC staff review and analyze data. Test results are published in consumer product reports designed to help justice system procurement officials make informed purchasing decisions.

Publications are available at no charge through NLECTC. Some documents are also available online through the Justice Technology Information Network (JUSTNET), the center's Internet/World Wide Web site. To request a document or additional information, call 800-248-2742 or 301-519-5060, or write:

National Law Enforcement and Corrections Technology Center

P.O. Box 1160
Rockville, MD 20849-1160

Email: asknlectc@nlectc.org

World Wide Web address: <http://www.nlectc.org>

About the National Law Enforcement and Corrections Technology Center System

The National Law Enforcement and Corrections Technology Center (NLECTC) system exists to support the Nation's structure of State and local law enforcement and corrections. The United States has more than 18,000 law enforcement agencies, 50 State correctional systems, and thousands of prisons and jails. The fragmented nature of law enforcement and corrections impedes the dissemination of valuable new information, fosters a patchwork marketplace that discourages the commercialization of new technologies, and underscores the need for uniform performance standards for equipment and technologies.

The National Institute of Justice's (NIJ's) Office of Science and Technology (OS&T) created NLECTC in 1994 as a national system of technology centers that are clearinghouses of information and sources of technology assistance and that also attend to special needs, including technology commercialization and standards development.

The NLECTC system's purpose is to determine the needs of the law enforcement and corrections communities and assist them in understanding, using, and benefiting from new and existing technologies that, increasingly, are vital levers of progress in criminal justice. It is especially important to note that NIJ/OS&T and the NLECTC system are the only current programs developed by the Federal Government that focus solely on the development and transfer of technologies to State and local law enforcement and corrections.

NLECTC is a program of NIJ, the research and development arm of the U.S. Department of Justice. The system currently consists of a national center, four regional centers, and several speciality offices. Also contributing to the initiatives of the center system is the Office of Law Enforcement Standards. The centers are colocated

with a host organization or agency that specializes in one or more areas of technology research and development.

The National Center, located in Rockville, Maryland, is the system's information hub. Regional centers are currently located in California, Colorado, New York, and South Carolina. Speciality centers located around the country deal with border matters (California), commercialization of law enforcement and corrections technologies (West Virginia), and rural law enforcement issues (Kentucky).

Each center shares roles with the other centers and has distinctive characteristics. All are focused on helping law enforcement and corrections take full advantage of technology's rapidly growing capacity to serve the purposes of crime control and the criminal justice system.

A national body of criminal justice professionals, the Law Enforcement and Corrections Technology Advisory Council (LECTAC), helps identify research and development priorities, thereby influencing the work of the NLECTC system. In addition, each NLECTC center has a regional advisory council of law enforcement and corrections officials. Together, LECTAC and the advisory councils help to keep the NLECTC system attentive to technological priorities and the needs of law enforcement and corrections. They help to link the end user with the developer to create technologies that adequately meet operational requirements and establish which potential technologies should be pursued for development.

All of the current regional centers have distinctive roles or focus areas, that, in many cases, are aligned with the expertise of host organizations and agencies. The centers are currently operated under cooperative agreements or interagency agreements with host organizations and agencies whose employees staff the centers.

To receive more information or to add your name to the NLECTC mailing list, call 800-248-2742 or 301-519-5060, or write:

National Law Enforcement and Corrections Technology Center

P.O. Box 1160
Rockville, MD 20849-1160
E-mail: asknlectc@nlectc.org
World Wide Web address: <http://www.nlectc.org>

The following is a list of NLECTC regional and affiliated facilities that assist NIJ in fulfilling its mission.

NLECTC-Northeast

26 Electronic Parkway
Rome, NY 13441-4514
(p) 888-338-0584
(f) 315-330-4315
E-mail: nlectc_ne@rl.af.mil

NLECTC-Southeast

5300 International Boulevard
North Charleston, SC 29418
(p) 800-292-4385
(f) 843-760-4611
E-mail: nlectc-se@nlectc-se.org

NLECTC-Rocky Mountain

2050 East Iliff Avenue
Denver, CO 80208
(p) 800-416-8086
(f) 303-871-2500
E-mail: nlectc@du.edu

NLECTC-West

c/o The Aerospace Corporation
2350 East El Segundo Boulevard
El Segundo, CA 90245-4691
(p) 888-548-1618
(f) 310-336-2227
E-mail: nlectc@law-west.org

Border Research and Technology Center

1010 Second Avenue
Suite 1920
San Diego, CA 92101-4912
(p) 888-656-2782
(f) 888-660-2782
E-mail: brtchrissa@aol.com

Office of Law Enforcement Standards

100 Bureau Drive, Stop 8102
Gaithersburg, MD 20899-8102
(p) 301-975-2757
(f) 301-948-0978
E-mail: oles@nist.gov

Office of Law Enforcement Technology Commercialization

Wheeling Jesuit University
316 Washington Avenue
Wheeling, WV 26003
(p) 888-306-5382
(f) 304-243-2131
E-mail: oletc@nttc.edu

National Center for Forensic Science

University of Central Florida
P.O. Box 162367
Orlando, FL 32816-2367
(p) 407-823-6469
(f) 407-823-3162
E-mail: natlctr@mail.ucf.edu

About the Office of Law Enforcement Standards

The Office of Law Enforcement Standards (OLES) was established as a matrix management organization in 1971 through a Memorandum of Understanding between the U.S. Departments of Justice and Commerce based upon the recommendations of the President's Commission on Crime. OLES' mission is to apply science and technology to the needs of the criminal justice community, including law enforcement, corrections, forensic science, and the fire service. While its major objective is to develop minimum performance standards, which are promulgated as voluntary national standards, OLES also undertakes studies leading to the publication of technical reports and user guides.

The areas of research investigated by OLES include clothing, communication systems, emergency equipment, investigative aids, protective equipment, security systems, vehicles, weapons, and analytical techniques and standard reference materials used by the forensic science community. The composition of OLES' projects varies depending upon priorities of the criminal justice community at any given time and, as necessary, draws upon the resources of the National Institute of Standards and Technology.

OLES assists law enforcement and criminal justice agencies in acquiring, on a cost-effective basis, the high-quality resources they need to do their jobs. To accomplish this, OLES:

- Develops methods for testing equipment performance and examining evidentiary materials.
- Develops standards for equipment and operating procedures.
- Develops standard reference materials.
- Performs other scientific and engineering research as required.

Since the program began in 1971, OLES has coordinated the development of nearly 200 standards, user guides, and advisory reports. Topics range from performance parameters of police patrol vehicles, to performance reports on various speed measuring devices, to soft body armor testing, to analytical procedures for developing DNA profiles.

The application of technology to enhance the efficiency and effectiveness of the criminal justice community continues to increase. The proper adoption of the products resulting from emerging technologies and the assessment of equipment performance, systems, methodologies, etc., used by criminal justice practitioners constitute critical issues having safety and legal ramifications. The consequences of inadequate equipment performance or inadequate test methods can range from inconvenient to catastrophic. In addition, these deficiencies can adversely affect the general population when they increase public safety costs, preclude arrest, or result in evidence found to be inadmissible in court.

Test Equipment

The following test equipment is utilized during the acceleration, top speed, braking, and vehicle dynamics portions of the evaluation program.

DATRON TECHNOLOGY, INC., 21654 Melrose Avenue, Building 16, Southfield, MI 48075

DLS Smart Sensor–Optical Noncontact Speed and Distance Sensor

CHRONOMIX CORPORATION, 650F Vaqueros Avenue, Sunnyvale, CA 94086–1920

Compusport 737–Select Printing Timer

LABORATORY EQUIPMENT CORPORATION (Labeco), Box 158, Mooresville, IN 46158

Tracktest Fifth Wheel

DD1.1 Digital Velocity Meter

DD2.1 Digital Distance Meter

Transmitter Assembly for DD1.1 and DD2.1

MICRO SWITCH, Division of Honeywell, Freeport, IL 61032

Modulated L.E.D. Control (Photoelectric micro-switch) Model FE–MLS–3A

BELL HELMETS, Box 927, Rantol, IL 61866

Nascar Helmet–Model MC–400

AMMCO TOOLS, INC., Wacker Park, North Chicago, IL 60064

Decelerometer, Model 7350

ALGE-TELESIGNAL TX/RX, Phoenix Sports Technology, 1344 Route 100 S., P.O. Box 774, Trexlertown, PA 18087

Alge Sports Timing Telesignal Transmitter–Model TX

Alge Sports Timing Telesignal Receiver–Model RX

Test Vehicle Descriptions and Photographs

**Ford Police Interceptor
4.6L SPFI**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|--|--|-------------------|
| MAKE Ford | MODEL Police Interceptor | SALES CODE NO. P71 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 281 | LITERS | 4.6 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Dual |
| HORSEPOWER (SAE NET) | 235 @ 4750 RPM | ALTERNATOR | 135 amp. |
| TORQUE | 275 ft. lbs. @ 4000 RPM | BATTERY | 750 cca. |
| COMPRESSION RATIO | 9.4:1 | | |
| TRANSMISSION | MODEL 4R70W | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.27:1 | | |
| STEERING | Recirculating ball and nut w/int. pwr. (constant ratio) | | |
| TURNING CIRCLE (CURB TO CURB) | 40.9 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P225/60R16 97V Goodyear Eagle RS-A | | |
| SUSPENSION TYPE (FRONT) | Independent SLA with ball joint and coil spring | | |
| SUSPENSION TYPE (REAR) | 4 bar link with watts linkage | | |
| GROUND CLEARANCE, MINIMUM | 6.0 in. | LOCATION Transmission | |
| | BRAKE SYSTEM Power, dual front piston, single rear piston, 4 circuit antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 314.1 sq. in. |
| BRAKES, REAR | TYPE Solid disc | SWEPT AREA | 174.8 sq. in. |
| FUEL CAPACITY | GALLONS 19.0 | LITERS | 71.9 |
| GENERAL MEASUREMENTS | WHEELBASE 114.7 in. | LENGTH | 212.0 in. |
| | TEST WEIGHT 4020 lbs. | HEIGHT | 56.8 in. |
| HEADROOM | FRONT 39.4 in. | REAR | 38.0 in. |
| LEGROOM | FRONT 42.5 in. | REAR | 39.6 in. |
| SHOULDER ROOM | FRONT 60.8 in. | REAR | 60.3 in. |
| HIP ROOM | FRONT 57.1 in. | REAR | 59.0 in. |
| | FRONT 58.2 cu. ft. | REAR | 51.1 cu. ft. |
| INTERIOR VOLUME | COMB 109.3 cu. ft. | TRUNK | 20.6 cu. ft. |
| | EPA MILEAGE EST. (MPG) | CITY 16 | HIGHWAY 22 |
| | | COMBINED 18 | |

**Ford Crown Victoria NGV
4.6L SPFI**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|--|--|-------------------|
| MAKE Ford | MODEL Crown Victoria NGV | SALES CODE NO. P71 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 281 | LITERS | 4.6 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 178 @ 4500 RPM | ALTERNATOR | 135 amp. |
| TORQUE | 237 ft. lbs. @ 3250 RPM | BATTERY | 750 cca. |
| COMPRESSION RATION | 10:1 | | |
| TRANSMISSION | MODEL 4R70W | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 2.73:1 | | |
| STEERING | Recirculating ball & nut w/int. pwr. (constant ratio) | | |
| TURNING CIRCLE (CURB TO CURB) | 40.9 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P225/60R16 97V Goodyear Eagle RS-A | | |
| SUSPENSION TYPE (FRONT) | Independent SLA with ball joint and coil spring | | |
| SUSPENSION TYPE (REAR) | 4 bar link with watts linkage | | |
| GROUND CLEARANCE, MINIMUM | 6.0 in. | LOCATION Transmission | |
| | BRAKE SYSTEM Power, dual front piston, single rear piston, 4 circuit antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 314.1 sq. in. |
| BRAKES, REAR | TYPE Solid disc | SWEPT AREA | 174.8 sq. in. |
| FUEL CAPACITY | GALLONS 10.0* | LITERS | 37.9* |
| GENERAL MEASUREMENTS | WHEELBASE 114.7 in. | LENGTH | 212.0 in. |
| | TEST WEIGHT 4332 lbs. | HEIGHT | 56.8 in. |
| HEADROOM | FRONT 39.4 in. | REAR | 38.0 in. |
| LEGROOM | FRONT 42.5 in. | REAR | 39.6 in. |
| SHOULDER ROOM | FRONT 60.8 in. | REAR | 60.3 in. |
| HIP ROOM | FRONT 57.1 in. | REAR | 59.0 in. |
| | FRONT 58.2 cu. ft. | REAR | 51.1 cu. ft. |
| INTERIOR VOLUME | COMB 109.3 cu. ft. | TRUNK | 14.0 cu. ft. |
| | EPA MILEAGE EST. (MPG) | CITY 15 | HIGHWAY 23 |
| | | COMBINED 18 | |

* Vehicle equipped with four CNG tanks. Total fuel capacity and EPA mileage are stated in gasoline equivalent.

**Chevrolet Impala
3.8L SPFI**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|--|--|-------------------|
| MAKE Chevrolet | MODEL Impala | SALES CODE NO. 1WF19 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 231 | LITERS | 3.8 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 200 @ 5200 RPM | ALTERNATOR | 125 amp. |
| TORQUE | 200 ft. lbs. @ 4000 RPM | BATTERY | 690 cca. |
| COMPRESSION RATIO | 9.4:1 | | |
| TRANSMISSION | MODEL 4T65E | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.29:1 | | |
| STEERING | Power rack and pinion | | |
| TURNING CIRCLE (CURB TO CURB) | 38.0 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P225/60R16 97H Goodyear RS-A | | |
| SUSPENSION TYPE (FRONT) | Independent McPherson strut, coil springs, and stabilizer bar | | |
| SUSPENSION TYPE (REAR) | Independent Tri-link coil spring over strut and stabilizer bar | | |
| GROUND CLEARANCE, MINIMUM | 6.1 in. | LOCATION Engine cradle | |
| | BRAKE SYSTEM Power, dual hydraulic, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 235.4 sq. in. |
| BRAKES, REAR | TYPE Solid disc | SWEPT AREA | 160.3 sq. in. |
| FUEL CAPACITY | GALLONS 17.0 | LITERS | 64.3 |
| GENERAL MEASUREMENTS | WHEELBASE 110.5 in. | LENGTH | 200.1 in. |
| | TEST WEIGHT 3587 lbs. | HEIGHT | 57.4 in. |
| HEADROOM | FRONT 39.2 in. | REAR | 36.8 in. |
| LEGROOM | FRONT 42.2 in. | REAR | 38.4 in. |
| SHOULDER ROOM | FRONT 59.0 in. | REAR | 58.9 in. |
| HIP ROOM | FRONT 56.8 in. | REAR | 55.7 in. |
| | FRONT 56.5 cu. ft. | REAR | 48.2 cu. ft. |
| INTERIOR VOLUME | COMB 104.7 cu. ft. | TRUNK | 17.6 cu. ft.* |
| | EPA MILEAGE EST. (MPG) | CITY 20 | HIGHWAY 29 |
| | | COMBINED 23 | |

* Compact spare tire.

**Chevrolet Camaro
5.7L SPFI (Automatic)**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|---|--|----------------------------|
| MAKE Chevrolet | MODEL Camaro | SALES CODE NO. 1FP87 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 350 | LITERS | 5.7 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Dual |
| HORSEPOWER (SAE NET) | 305 @ 5200 RPM | ALTERNATOR | 105 amp. |
| TORQUE | 335 ft. lbs. @ 4000 RPM | BATTERY | 525 cca. |
| COMPRESSION RATIO | 10.1:1 | | |
| TRANSMISSION | MODEL 4L60-E | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.23:1 | | |
| STEERING | Power, rack and pinion, hydraulic | | |
| TURNING CIRCLE (CURB TO CURB) | 39.0 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P245/50ZR16 Goodyear Eagle RS-A | | |
| SUSPENSION TYPE (FRONT) | Independent SLA, coil over monotube gas-charged shocks and stabilizer bar | | |
| SUSPENSION TYPE (REAR) | Salisbury axle, torque arm, trailing arm, track bar coil springs, monotube gas-charged shock and stabilizer bar | | |
| GROUND CLEARANCE, MINIMUM | 4.4 in. | LOCATION | Catalytic converter shield |
| BRAKE SYSTEM | Power, single caliper, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 138.6 sq. in. |
| BRAKES, REAR | TYPE Vented disc | SWEPT AREA | 169.0 sq. in. |
| FUEL CAPACITY | GALLONS 15.5 | LITERS | 58.7 |
| GENERAL MEASUREMENTS | WHEELBASE 101.1 in. | LENGTH | 193.2 in. |
| | TEST WEIGHT 3485 lbs. | HEIGHT | 51.3 in. |
| HEADROOM | FRONT 37.2 in. | REAR | 35.3 in. |
| LEGROOM | FRONT 43.0 in. | REAR | 26.8 in. |
| SHOULDER ROOM | FRONT 57.4 in. | REAR | 55.8 in. |
| HIP ROOM | FRONT 52.8 in. | REAR | 44.4 in. |
| INTERIOR VOLUME | FRONT 53.1 cu. ft. | REAR | 28.8 cu. ft. |
| | COMB 81.9 cu. ft. | TRUNK | 12.9 cu. ft.* |
| EPA MILEAGE EST. (MPG) | CITY 17 | HIGHWAY 27 | COMBINED 20 |

* With second seat down—32.8 cu. ft.

**Chevrolet Camaro
5.7L SPFI (6-Speed Manual)**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|---|--|--------------------|
| MAKE Chevrolet | MODEL Camaro | SALES CODE NO. 1FP87 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 350 | LITERS | 5.7 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Dual |
| HORSEPOWER (SAE NET) | 305 @ 5200 RPM | ALTERNATOR | 105 amp. |
| TORQUE | 335 ft. lbs. @ 4000 RPM | BATTERY | 525 cca. |
| COMPRESSION RATIO | 10.1:1 | | |
| TRANSMISSION | MODEL MM6 | TYPE 6-speed manual | |
| | LOCKUP TORQUE CONVERTER? N/A | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.42:1 | | |
| STEERING | Power rack and pinion hydraulic | | |
| TURNING CIRCLE (CURB TO CURB) | 39.0 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P245/50ZR16 Goodyear Eagle RS-A | | |
| SUSPENSION TYPE (FRONT) | Independent SLA, coil over monotube gas-charged shocks and stabilizer bar | | |
| SUSPENSION TYPE (REAR) | Salisbury axle, torque arm, trailing arm, track bar coil spring, monotube gas-charged shock, and stabilizer bar | | |
| GROUND CLEARANCE, MINIMUM | 4.4 in. | LOCATION Catalytic converter shield | |
| | BRAKE SYSTEM Power, single caliper, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 238.6 sq. in. |
| BRAKES, REAR | TYPE Vented disc | SWEPT AREA | 169.0 sq. in. |
| FUEL CAPACITY | GALLONS 15.5 | LITERS | 58.7 |
| GENERAL MEASUREMENTS | WHEELBASE 101.1 in. | LENGTH | 193.2 in. |
| | TEST WEIGHT 3466 lbs. | HEIGHT | 51.3 in. |
| HEADROOM | FRONT 37.2 in. | REAR | 35.3 in. |
| LEGROOM | FRONT 43.0 in. | REAR | 26.8 in. |
| SHOULDER ROOM | FRONT 57.4 in. | REAR | 55.8 in. |
| HIP ROOM | FRONT 52.8 in. | REAR | 44.4 in. |
| | FRONT 53.1 cu. ft. | REAR | 28.8 cu. ft. |
| INTERIOR VOLUME | FRONT 53.1 cu. ft. | REAR | 28.8 cu. ft. |
| | COMB 81.9 cu. ft. | TRUNK | 12.9 cu. ft.* |
| EPA MILEAGE EST. (MPG) | CITY 18 | HIGHWAY 29 | COMBINED 22 |
| | | | |

* With second seat down—32.8 cu. ft.

**AM General Hummer
6.5L (Turbo Diesel)**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|--|-------------------------------|---------------------------|
| MAKE AM General | MODEL Hummer | SALES CODE NO. HMCS | |
| ENGINE DISPLACEMENT | CUBIC INCHES 396 | LITERS | 6.5 |
| FUEL SYSTEM | Turbo Diesel | EXHAUST | Single Stainless steel |
| HORSEPOWER (SAE NET) | 195 @ 3400 RPM | ALTERNATOR | 124 amp. |
| TORQUE | 430 ft. lbs. @ 1800 RPM | BATTERY | Dual 800 cca. |
| COMPRESSION RATIO | 20.2:1 | | |
| TRANSMISSION | MODEL 4L80E | TYPE 4-speed automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 4:92 front and rear | | |
| STEERING | Power assisted variable ratio | | |
| TURNING CIRCLE (CURB TO CURB) | 53 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | 37 X 12.50R17 GSA S-Rating | | |
| SUSPENSION TYPE (FRONT) | Ind. double A frame, coil springs, axle shocks | | |
| SUSPENSION TYPE (REAR) | Same | | |
| GROUND CLEARANCE, MINIMUM | 16 in. | LOCATION | Axle housing |
| BRAKE SYSTEM | Power 4-wheel antilock disc | | |
| BRAKES, FRONT | TYPE Disc | SWEPT AREA | 229 sq. in. |
| BRAKES, REAR | TYPE Disc | SWEPT AREA | 229 sq. in. |
| FUEL CAPACITY | GALLONS 42 | LITERS | 159 |
| GENERAL MEASUREMENTS | WHEELBASE 130 in. | LENGTH | 184.5 in. * |
| | TEST WEIGHT 7540 lbs. | HEIGHT | 75 in. |
| HEADROOM | FRONT 37.5 in. | REAR | 36.7 in. |
| LEGROOM | FRONT 36.0 in. | REAR | 36.0 in. |
| SHOULDER ROOM | FRONT 78.8 in. | REAR | 78.8 in. |
| HIP ROOM | FRONT 50.6 in. | REAR | 50.6 in. |
| INTERIOR VOLUME | FRONT 61.6 cu. ft. | REAR | 61.6 cu. ft. |
| | COMB 123.2 cu. ft. | TRUNK | 57.85 cu. ft. |
| EPA MILEAGE EST. (MPG) | CITY 9 | HIGHWAY 10 | COMBINED N/A* |

* With winch.

** Class III vehicle—not tested to normal EPA requirement.

**DaimlerChrysler Jeep Cherokee
4.0L MPFI (2-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|---|--|--------------------|
| MAKE DaimlerChrysler Jeep | MODEL Cherokee (2WD) | SALES CODE NO. AHB | |
| ENGINE DISPLACEMENT | CUBIC INCHES 242 | LITERS | 4.0 |
| FUEL SYSTEM | Multiport Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 190 @ 4600 RPM | ALTERNATOR | 124 amp. |
| TORQUE | 225 ft. lbs. @ 3000 RPM | BATTERY | 500 cca. |
| COMPRESSION RATIO | 8.8:1 | | |
| TRANSMISSION | MODEL AW3043LE | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.55:1 | | |
| STEERING | Power recirculating ball, 14.0:1 | | |
| TURNING CIRCLE (CURB TO CURB) | 35.7 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P225/70R15 100H Goodyear Eagle GA | | |
| SUSPENSION TYPE (FRONT) | Link coil springs, gas-charged shocks, stabilizer bar | | |
| SUSPENSION TYPE (REAR) | Multileaf springs, gas-charged shocks, stabilizer bar | | |
| GROUND CLEARANCE, MINIMUM | 8.6 in. | LOCATION Rear axle housing | |
| | BRAKE SYSTEM Power, single caliper front, duo servo rear, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 192.6 sq. in. |
| BRAKES, REAR | TYPE Drum | SWEPT AREA | 110.0 sq. in. |
| FUEL CAPACITY | GALLONS 20.2 | LITERS | 76.5 |
| GENERAL MEASUREMENTS | WHEELBASE 101.4 in. | LENGTH | 165.3 in. |
| | TEST WEIGHT 3476 lbs. | HEIGHT | 63.2 in. |
| HEADROOM | FRONT 37.8 in. | REAR | 38.0 in. |
| LEGROOM | FRONT 41.4 in. | REAR | 35.0 in. |
| SHOULDER ROOM | FRONT 54.7 in. | REAR | 54.7 in. |
| HIP ROOM | FRONT 54.8 in. | REAR | 44.3 in. |
| INTERIOR VOLUME | FRONT 50.3 cu. ft. | REAR | 42.8 cu. ft. |
| | COMB 93.1 cu. ft. | TRUNK | 32.9 cu. ft. * |
| EPA MILEAGE EST. (MPG) | CITY 16 | HIGHWAY 21 | COMBINED 18 |
| | | | |

* Behind second seat/with second seat down—69.0 cu. ft.

**DaimlerChrysler Jeep Cherokee
4.0L MPFI (4-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

Test Vehicle Description

| | | | |
|--|---|--|--------------------|
| MAKE DaimlerChrysler Jeep | MODEL Cherokee (4WD) | SALES CODE NO. AHB | |
| ENGINE DISPLACEMENT | CUBIC INCHES 242 | LITERS | 4.0 |
| FUEL SYSTEM | Multiport Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 190 @ 4600 RPM | ALTERNATOR | 124 amp. |
| TORQUE | 225 ft. lbs. @ 3000 RPM | BATTERY | 500 cca. |
| COMPRESSION RATIO | 8.8:1 | | |
| TRANSMISSION | MODEL AW3043LE | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.55:1 | | |
| STEERING | Power recirculating ball, 14.0:1 | | |
| TURNING CIRCLE (CURB TO CURB) | 35.7 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P225/70R15 100H Goodyear Eagle GA | | |
| SUSPENSION TYPE (FRONT) | Link coil springs, gas-charged shocks, stabilizer bar | | |
| SUSPENSION TYPE (REAR) | Multileaf springs, gas-charged shocks, stabilizer bar | | |
| GROUND CLEARANCE, MINIMUM | 8.5 in. | LOCATION Front axle housing | |
| | BRAKE SYSTEM Power, single caliper front, duo servo rear, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 192.6 sq. in. |
| BRAKES, REAR | TYPE Drum | SWEPT AREA | 110.0 sq. in. |
| FUEL CAPACITY | GALLONS 20.2 | LITERS | 76.5 |
| GENERAL MEASUREMENTS | WHEELBASE 101.4 in. | LENGTH | 165.3 in. |
| | TEST WEIGHT 3655 lbs. | HEIGHT | 63.2 in. |
| HEADROOM | FRONT 37.8 in. | REAR | 38.0 in. |
| LEGROOM | FRONT 41.4 in. | REAR | 35.0 in. |
| SHOULDER ROOM | FRONT 54.7 in. | REAR | 54.7 in. |
| HIP ROOM | FRONT 54.8 in. | REAR | 44.3 in. |
| INTERIOR VOLUME | FRONT 50.3 cu. ft. | REAR | 42.8 cu. ft. |
| | COMB 93.1 cu. ft. | TRUNK | 32.9 cu. ft. * |
| EPA MILEAGE EST. (MPG) | CITY 15 | HIGHWAY 20 | COMBINED 17 |

* Behind second seat/with second seat down—69.0 cu. ft.

2001 Model Year Patrol Vehicle Testing

Test Vehicle Descriptions Summary

| | Ford Police Interceptor | Ford Crown Victoria NGV | Chevrolet Impala | Chevrolet Camaro (Auto) |
|---------------------------------|----------------------------|----------------------------|---------------------|----------------------------|
| ENGINE DISPLACEMENT—CU. IN. | 281 | 281 | 231 | 350 |
| ENGINE DISPLACEMENT—LITERS | 4.6 | 4.6 | 3.8 | 5.7 |
| ENGINE FUEL SYSTEM | SPFI | SPFI | SPFI | SPFI |
| HORSEPOWER (SAE NET) | 235 | 178 | 200 | 305 |
| TORQUE (FT. LBS.) | 275 | 237 | 200 | 335 |
| COMPRESSION RATIO | 9.4:1 | 10:1 | 9.4:1 | 10.1:1 |
| AXLE RATIO | 3.27:1 | 2.73:1 | 3.29:1 | 3.23:1 |
| TURNING CIRCLE—FT. CURB TO CURB | 40.9 | 40.9 | 38.0 | 39.0 |
| TRANSMISSION | Elec. Automatic | Elec. Automatic | Elec. Automatic | Elec. Automatic |
| TRANSMISSION MODEL NUMBER | 4R70W | 4R70W | 4T65E | 4L60E |
| LOCKUP TORQUE CONVERTER | Yes | Yes | Yes | Yes |
| TRANSMISSION OVERDRIVE | Yes | Yes | Yes | Yes |
| TIRE SIZE | P225/60R | P225/60R | P255/60R | P245/50ZR |
| WHEEL RIM SIZE—INCHES | 16 | 16 | 16 | 16 |
| GROUND CLEARANCE—INCHES | 6.0 | 6.0 | 6.1 | 4.4 |
| BRAKE SYSTEM | Power, ABS | Power, ABS | Power, ABS | Power, ABS |
| BRAKES—FRONT TYPE | Vented Disc | Vented Disc | Vented Disc | Vented Disc |
| BRAKES—REAR TYPE | Solid Disc | Solid Disc | Solid Disc | Vented Disc |
| FUEL CAPACITY—GALLONS | 19.0 | 10.0* | 17.0 | 15.5 |
| FUEL CAPACITY—LITERS | 71.9 | 37.9* | 64.3 | 58.7 |
| OVERALL LENGTH—INCHES | 212.0 | 212.0 | 200.1 | 193.2 |
| OVERALL HEIGHT—INCHES | 56.8 | 56.8 | 57.4 | 51.3 |
| TEST WEIGHT—LBS. | 4020 | 4332 | 3587 | 3485 |
| WHEELBASE—INCHES | 114.7 | 114.7 | 110.5 | 101.1 |
| HEADROOM FRONT—INCHES | 39.4 | 39.4 | 39.2 | 37.2 |
| HEADROOM REAR—INCHES | 38.0 | 38.0 | 36.8 | 35.3 |
| LEGROOM FRONT—INCHES | 42.5 | 42.5 | 42.2 | 43.0 |
| LEGROOM REAR—INCHES | 39.6 | 39.6 | 38.4 | 26.8 |
| SHOULDER ROOM FRONT—INCHES | 60.8 | 60.8 | 59.0 | 57.4 |
| SHOULDER ROOM REAR—INCHES | 60.3 | 60.3 | 58.9 | 55.8 |
| HIPROOM FRONT—INCHES | 57.1 | 57.1 | 56.8 | 52.8 |
| HIPROOM REAR—INCHES | 59.0 | 59.9 | 55.7 | 44.4 |
| INTERIOR VOLUME FRONT—CU. FT. | 58.2 | 58.2 | 56.5 | 53.1 |
| INTERIOR VOLUME REAR—CU. FT. | 51.1 | 51.1 | 48.2 | 28.8 |
| INTERIOR VOLUME COMB.—CU. FT. | 109.3 | 109.3 | 104.7 | 81.9 |
| TRUNK VOLUME—CU. FT. | 20.6 | 20.6 | 17.6 | 12.9** |
| EPA MILEAGE—CITY—MPG | 16 | 15 | 20 | 17 |
| EPA MILEAGE—HIGHWAY—MPG | 22 | 23 | 29 | 27 |
| EPA MILEAGE—COMBINED—MPG | 18 | 18 | 23 | 20 |

* Vehicle equipped with four CNG tanks, total fuel capacity & EPA mileage est. are stated in gasoline equivalent.

** With second seat down—32.8 cu. ft.

Test Vehicle Descriptions Summary

| | Chevrolet Camaro (6-Speed) | AM General Hummer | Jeep Cherokee (2WD) | Jeep Cherokee (4WD) |
|---------------------------------|-----------------------------------|--------------------------|----------------------------|----------------------------|
| ENGINE DISPLACEMENT—CU. IN. | 350 | 396 | 242 | 242 |
| ENGINE DISPLACEMENT—LITERS | 5.7 | 6.5 | 4.0 | 4.0 |
| ENGINE FUEL SYSTEM | SPFI | Turbo Diesel | MPFI | MPFI |
| HORSEPOWER (SAE NET) | 305 | 195 | 190 | 190 |
| TORQUE (FT. LBS.) | 335 | 430 | 225 | 225 |
| COMPRESSION RATIO | 10.1:1 | 20.2:1 | 8.8:1 | 8.8:1 |
| AXLE RATIO | 3.42:1 | 4:92 | 3.55:1 | 3.55:1 |
| TURNING CIRCLE—FT. CURB TO CURB | 39.0 | 53.0 | 35.7 | 35.7 |
| TRANSMISSION | 6-Speed Manual | Automatic | Elec. Automatic | Elec. Automatic |
| TRANSMISSION MODEL NUMBER | MM6 | 4L80E | AW3043LE | AW3043LE |
| LOCKUP TORQUE CONVERTER | N/A | Yes | Yes | Yes |
| TRANSMISSION OVERDRIVE | Yes | Yes | Yes | Yes |
| TIRE SIZE | P245/50ZR | 37X12/50R | P225/70R | P225/70R |
| WHEEL RIM SIZE—INCHES | 16 | 17 | 15 | 15 |
| GROUND CLEARANCE—INCHES | 4.4 | 16.0 | 8.6 | 8.5 |
| BRAKE SYSTEM | Power, ABS | Power, ABS | Power, ABS | Power, ABS |
| BRAKES—FRONT TYPE | Vented Disc | Disc | Vented Disc | Vented Disc |
| BRAKES—REAR TYPE | Vented Disc | Disc | Drum | Drum |
| FUEL CAPACITY—GALLONS | 15.5 | 42.0 | 20.2 | 20.2 |
| FUEL CAPACITY—LITERS | 58.7 | 159 | 76.5 | 76.5 |
| OVERALL LENGTH—INCHES | 193.2 | 184.5 | 165.3 | 165.3 |
| OVERALL HEIGHT—INCHES | 51.3 | 75.0 | 63.2 | 63.2 |
| TEST WEIGHT—LBS. | 3466 | 7540 | 3476 | 3655 |
| WHEELBASE—INCHES | 101.1 | 130.0 | 101.4 | 101.4 |
| HEADROOM FRONT—INCHES | 37.2 | 37.5 | 37.8 | 37.8 |
| HEADROOM REAR—INCHES | 35.3 | 36.7 | 38.0 | 38.0 |
| LEGROOM FRONT—INCHES | 43.0 | 36.0 | 41.4 | 41.4 |
| LEGROOM REAR—INCHES | 26.8 | 36.0 | 35.0 | 35.0 |
| SHOULDER ROOM FRONT—INCHES | 57.4 | 78.8 | 54.7 | 54.7 |
| SHOULDER ROOM REAR—INCHES | 55.8 | 78.8 | 54.7 | 54.7 |
| HIPROOM FRONT—INCHES | 52.8 | 50.6 | 54.8 | 54.8 |
| HIPROOM REAR—INCHES | 44.4 | 50.6 | 44.3 | 44.3 |
| INTERIOR VOLUME FRONT—CU. FT. | 53.1 | 61.6 | 50.3 | 50.3 |
| INTERIOR VOLUME REAR—CU. FT. | 28.8 | 61.6 | 42.8 | 42.8 |
| INTERIOR VOLUME COMB.—CU. FT. | 81.9 | 123.2 | 93.1 | 93.1 |
| TRUNK VOLUME—CU. FT. | 12.9* | 57.85 | 32.9** | 32.9** |
| EPA MILEAGE—CITY—MPG | 18 | 9 | 16 | 15 |
| EPA MILEAGE—HIGHWAY—MPG | 29 | 10 | 21 | 20 |
| EPA MILEAGE—COMBINED—MPG | 22 | N/A | 18 | 17 |

* With second seat down—32.8 cu. ft.

** Behind second seat/with second seat down—69.0 cu. ft.

Vehicle Dynamics Testing

Vehicle Dynamics Testing

Test Objective

Determine each vehicle's high-speed pursuit or emergency handling characteristics and performance in comparison to the other vehicles in the test group. The course used is a 2-mile, road-racing-type configuration, containing hills, curves, and corners. The course simulates actual conditions encountered in pursuit or emergency driving situations in the field, with the exception of other traffic. The evaluation will be a true test of the

success or failure of the vehicle manufacturers to offer vehicles that provide the optimum balance between handling (suspension components), acceleration (usable horsepower), and braking characteristics.

Test Methodology

Each vehicle will be driven over the course for 16 timed laps, using 4 separate drivers. The final score for each vehicle will be the average of the fastest 12 timed laps.



Aerial view of Grattan Raceway.



Laps are timed by computer.

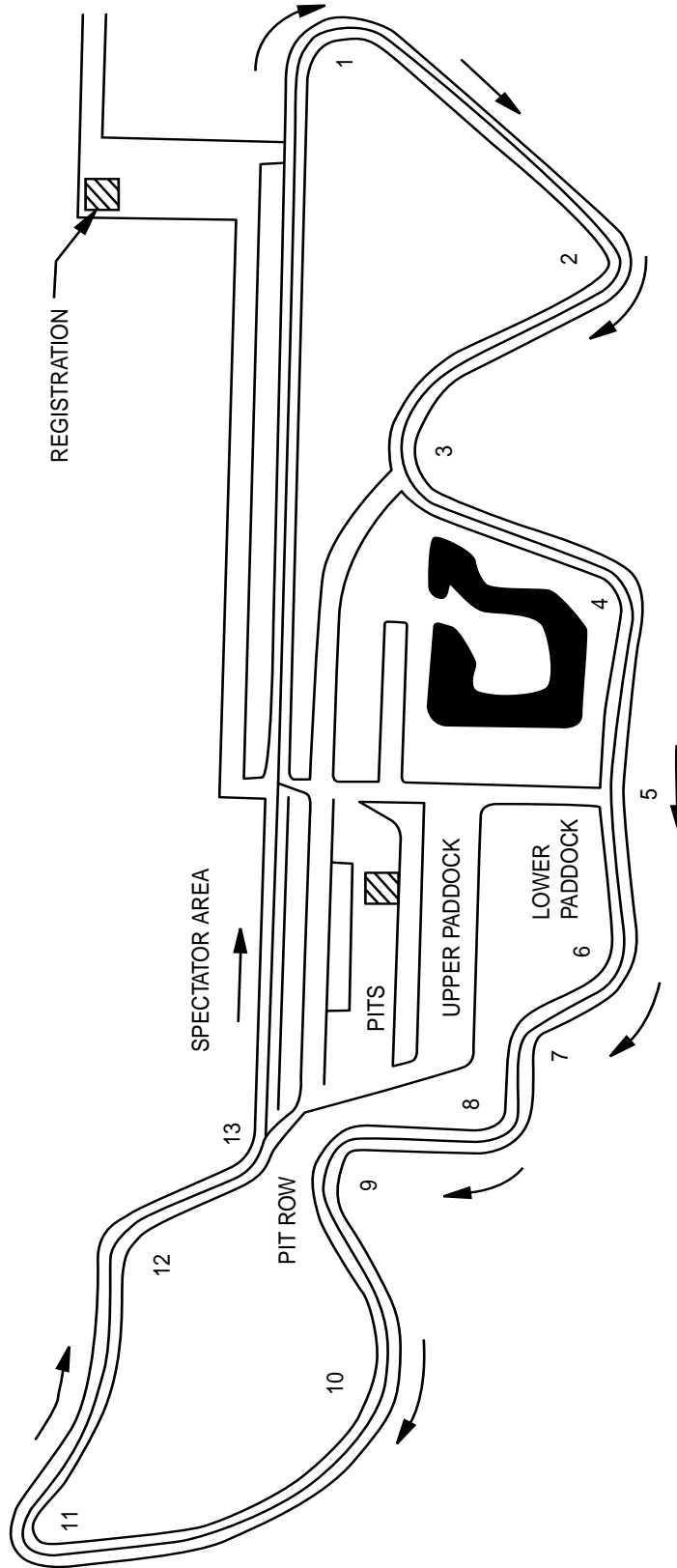


Posting of scores.



Grattan Raceway Park

7201 Lessiter
Belding, Michigan 48809



Arrows indicate
Michigan State Police
Road Test Course and
Direction of Travel.

2001 Model Year Patrol Vehicle Testing

Vehicle Dynamics Test Data

| VEHICLES | DRIVERS | LAP 1 | LAP 2 | LAP 3 | LAP 4 | AVERAGE |
|-------------------------|----------|---------|---------|---------|---------|----------------|
| Ford | Flegel | 1:41.85 | 1:41.96 | 1:42.50 | 1:42.18 | |
| Police Interceptor | Clark | 1:42.60 | 1:42.44 | 1:43.30 | 1:42.93 | |
| 4.6L SPFI | Wilson | 1:42.98 | 1:42.62 | 1:42.79 | 1:43.10 | |
| ABS Brakes | Schutter | 1:43.47 | 1:43.01 | 1:44.14 | 1:43.73 | |
| OVERALL AVERAGE | | | | | | 1:42.58 |
| Ford | Flegel | 1:48.59 | 1:48.29 | 1:49.09 | 1:48.98 | |
| Crown Victoria NGV | Clark | 1:49.07 | 1:49.51 | 1:49.63 | 1:49.05 | |
| 4.6L SPFI | Wilson | 1:48.99 | 1:49.43 | 1:49.96 | 1:49.52 | |
| ABS Brakes | Schutter | 1:49.97 | 1:50.32 | 1:50.11 | 1:50.68 | |
| OVERALL AVERAGE | | | | | | 1:49.18 |
| Chevrolet | Flegel | 1:43.41 | 1:43.76 | 1:43.50 | 1:43.00 | |
| Impala | Clark | 1:44.54 | 1:43.32 | 1:43.40 | 1:43.42 | |
| 3.8L | Wilson | 1:43.86 | 1:44.17 | 1:44.12 | 1:44.22 | |
| ABS Brakes | Schutter | 1:43.82 | 1:43.97 | 1:43.69 | 1:43.94 | |
| OVERALL AVERAGE | | | | | | 1:43.59 |
| Chevrolet | Flegel | 1:36.53 | 1:36.93 | 1:36.43 | 1:36.82 | |
| Camaro (Automatic) | Clark | 1:37.07 | 1:36.09 | 1:35.83 | 1:37.12 | |
| 5.7L | Wilson | 1:37.32 | 1:36.84 | 1:37.26 | 1:36.88 | |
| ABS Brakes | Schutter | 1:37.61 | 1:38.06 | 1:37.96 | 1:38.43 | |
| OVERALL AVERAGE | | | | | | 1:36.76 |
| Chevrolet | Flegel | 1:35.72 | 1:37.74 | 1:37.62 | 1:37.42 | |
| Camaro (6-Speed Manual) | Clark | 1:37.11 | 1:36.76 | 1:36.41 | 1:36.16 | |
| 5.7L | Wilson | 1:37.12 | 1:36.98 | 1:37.33 | 1:37.91 | |
| ABS Brakes | Schutter | 1:39.95 | 1:38.37 | 1:37.78 | 1:38.85 | |
| OVERALL AVERAGE | | | | | | 1:37.01 |
| AM General | Flegel | 2:00.59 | 2:00.79 | 2:00.93 | 2:00.47 | |
| Hummer | Clark | 2:01.63 | 2:01.00 | 2:00.97 | 2:01.25 | |
| 6.5L | Wilson | 2:00.89 | 2:01.54 | 2:01.33 | 2:00.20 | |
| ABS Brakes | Schutter | 2:02.16 | 2:02.56 | 2:02.30 | 2:02.06 | |
| OVERALL AVERAGE | | | | | | 2:00.97 |

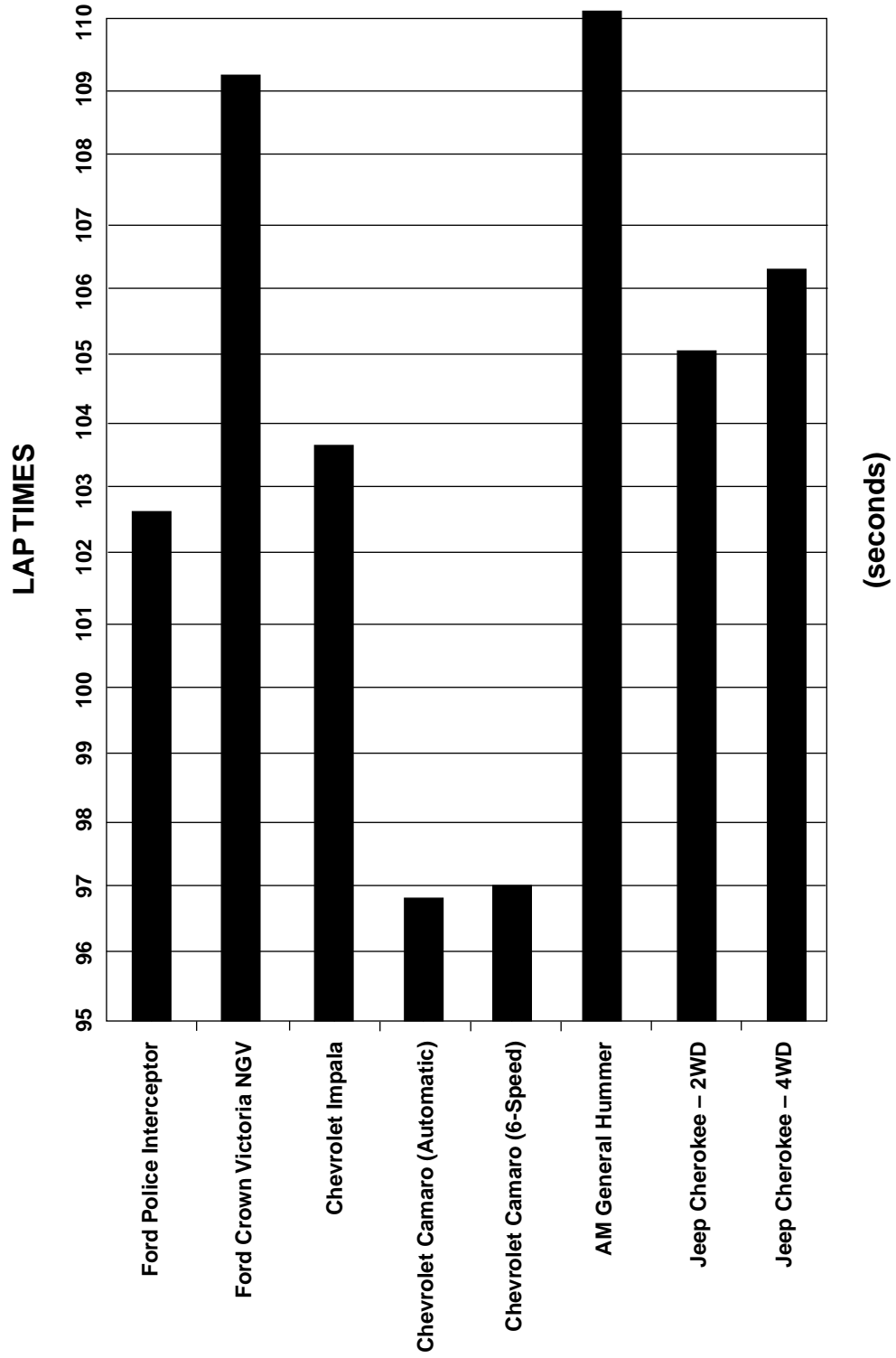
Vehicle Dynamics Test Data

| VEHICLES | DRIVERS | LAP 1 | LAP 2 | LAP 3 | LAP 4 | AVERAGE |
|------------------------|----------|---------|---------|---------|---------|----------------|
| DaimlerChrysler | Flegel | 1:44.96 | 1:45.81 | 1:44.82 | 1:45.15 | |
| Jeep Cherokee (2WD) | Clark | 1:44.73 | 1:44.66 | 1:45.21 | 1:45.21 | |
| 4.0L MPFI | Wilson | 1:45.58 | 1:45.03 | 1:44.79 | 1:45.12 | |
| ABS Brakes | Schutter | 1:45.76 | 1:45.44 | 1:45.15 | 1:45.55 | |
| OVERALL AVERAGE | | | | | | 1:45.02 |
| DaimlerChrysler | Flegel | 1:46.85 | 1:46.43 | 1:45.87 | 1:45.08 | |
| Jeep Cherokee (4WD) | Clark | 1:45.26 | 1:45.18 | 1:45.98 | 1:45.77 | |
| 4.0L MPFI | Wilson | 1:46.24 | 1:45.40 | 1:46.75 | 1:46.91 | |
| ABS Brakes | Schutter | 1:46.90 | 1:46.45 | 1:46.99 | 1:46.51 | |
| OVERALL AVERAGE | | | | | | 1:46.16 |



Vehicle dynamics in progress.

2001 VEHICLE DYNAMICS COMPARISON



Acceleration, Top Speed, and Brake Testing

Acceleration and Top Speed Testing

Acceleration Test Objective

Determine the ability of each test vehicle to accelerate from a standing start to 60 mph, 80 mph, and 100 mph, and determine the distance to reach 110 mph and 120 mph.

Acceleration Test Methodology

Using a DLS Smart Sensor–Optical Noncontact Speed and Distance Sensor in conjunction with a laptop computer, each vehicle is driven through four acceleration sequences, two northbound and two southbound, to allow for wind direction. The four resulting times for each target speed are averaged and the average times used to derive scores on the competitive test for acceleration.

Top Speed Test Objective

Determine the actual top speed attainable by each test vehicle within a distance of 14 miles from a standing start.

Top Speed Test Methodology

Following the fourth acceleration run, each test vehicle will continue to accelerate to the top speed attainable within 14 miles from the start of the run. The highest speed attained within the 14-mile distance will be the vehicle's score on the competitive test for top speed.



Laptop computer set up.



Test drivers preparing for test.

Brake Testing

Brake Test Objective

Determine the deceleration rate attained by each test vehicle on twelve 60 to 0 mph impending skid (threshold) stops, with ABS in operation if the vehicle is so equipped. Each vehicle will be scored on the average deceleration rate it attains.

Brake Test Methodology

Each vehicle will make two decelerations at specific predetermined points on the test road from 90 to 0 mph at 22 ft/s², with the driver using a decelerometer to maintain the deceleration rate. Immediately after these

“heat-up” stops are completed, the vehicle will be turned around and will make six measured 60 to 0 mph impending skid (threshold) stops with ABS in operation, if so equipped, at specific predetermined points. Following a 4-minute heat soak, the entire sequence will be repeated. The exact initial velocity at the beginning of each of the 60 to 0 mph decelerations, and the exact distance required to make each stop, will be recorded by means of a fifth wheel in conjunction with electronic speed and distance meters. The data resulting from the 12 total stops will be used to calculate the average deceleration rate, which is the vehicle’s score for this test.

Deceleration Rate Formula

$$\text{Deceleration Rate (DR)} = \frac{\text{Initial Velocity}^2 (\text{IV})^2}{2 \text{ times Stopping Distance (SD)}} = \frac{(\text{IV})^2}{2 (\text{SD})}$$

Example:

$$\begin{aligned} \text{Initial Velocity} &= 89.175 \text{ ft/s (60.8 mph x 1.4667*)} \\ \text{Stopping Distance} &= 171.4 \text{ ft} \end{aligned}$$

$$\text{DR} = \frac{(\text{IV})^2}{2(\text{SD})} = \frac{(89.175)^2}{2(171.4)} = \frac{7952.24}{342.8} = 23.198 \text{ ft/s}^2$$

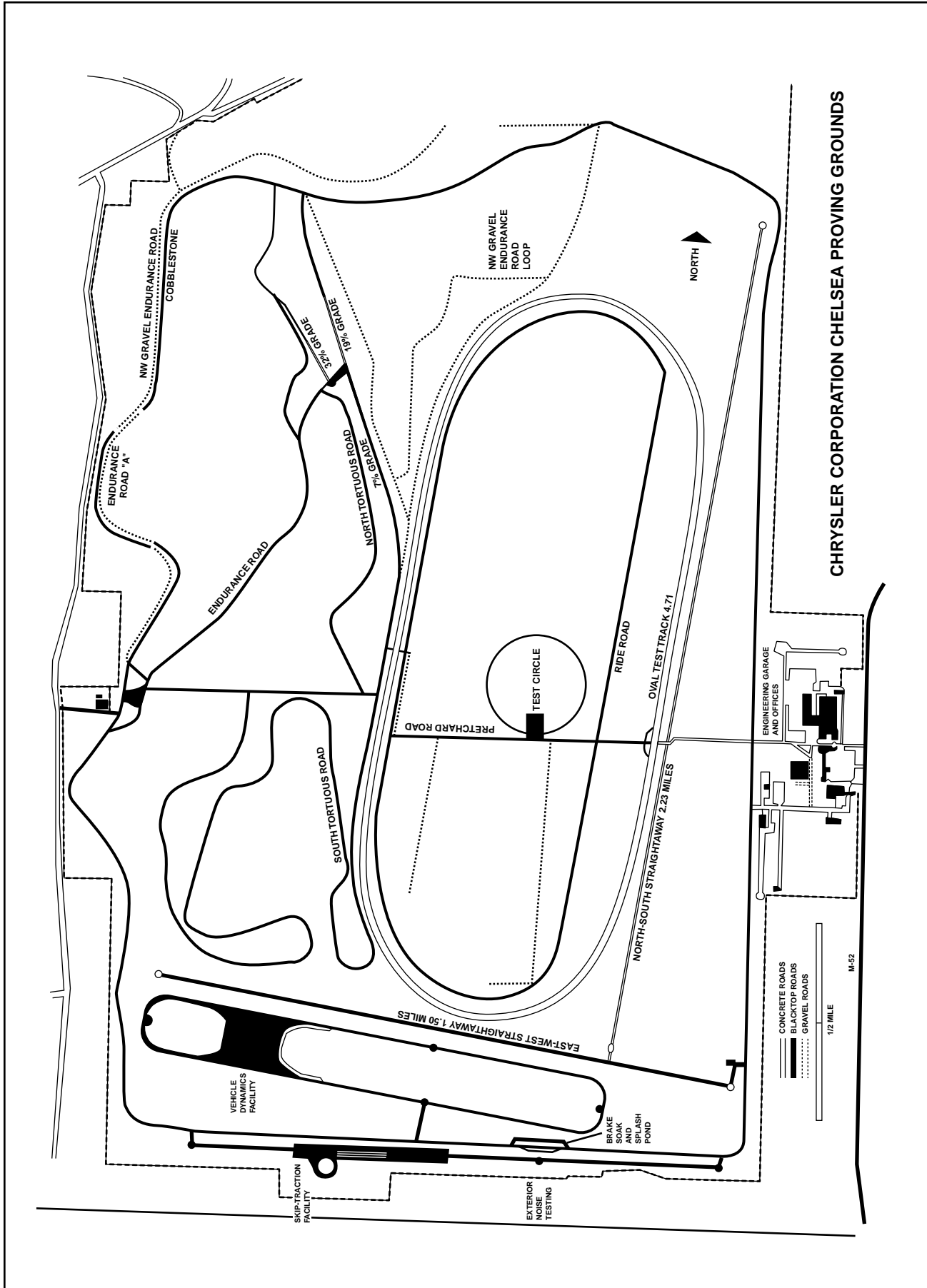
Once a vehicle’s average deceleration rate has been determined, it is possible to calculate the stopping distance from any given speed by utilizing the following formula:

Select a speed; translate that speed into feet per second; square the feet per second figure by multiplying it by itself; divide the resultant figure by 2; divide the remaining figure by the average deceleration rate of the vehicle in question.

Example:

$$60 \text{ mph} = 88.002 \text{ ft/s} \times 88.002 = 7744.352 / 2 = 3872.176 / 23.198 \text{ ft/s}^2 = 166.9 \text{ ft.}$$

*Initial velocity must be expressed in terms of feet per second, with 1 mile per hour being equal to 1.4667 feet per second.



2001 Model Year Patrol Vehicle Testing

Summary of Acceleration, Top Speed, and Brake Testing Data

| ACCELERATION* | | Ford Police Interceptor 4.6L SPFI | Ford Crown Victoria NGV 4.6L SPFI | Chevrolet Impala 3.8L SPFI | Chevrolet Camaro (Auto) 5.7L SPFI |
|--|---------------------------|--|--|---|--|
| 0–20 mph | (sec.) | 1.88 | 2.47 | 2.02 | 1.61 |
| 0–30 mph | (sec.) | 3.20 | 4.31 | 3.28 | 2.47 |
| 0–40 mph | (sec.) | 4.64 | 6.18 | 4.70 | 3.36 |
| 0–50 mph | (sec.) | 6.39 | 8.64 | 6.67 | 4.45 |
| 0–60 mph | (sec.) | 8.70 | 12.14 | 9.20 | 5.87 |
| 0–70 mph | (sec.) | 11.22 | 15.86 | 11.91 | 7.31 |
| 0–80 mph | (sec.) | 14.35 | 20.38 | 15.23 | 9.06 |
| 0–90 mph | (sec.) | 18.97 | 26.67 | 19.90 | 11.33 |
| 0–100 mph | (sec.) | 24.61 | 37.02 | 25.40 | 13.93 |
| TOP SPEED | (mph) | 129** | 123** | 124** | 159** |
| DISTANCE TO REACH | | | | | |
| 110 mph | (miles) | .67 | 1.37 | .71 | .33 |
| 120 mph | (miles) | 1.18 | 2.92 | 2.01 | .43 |
| QUARTER MILE | | | | | |
| Time | (sec.) | 16.64 | 18.81 | 17.02 | 14.31 |
| Speed | (miles) | 85.43 | 76.98 | 84.33 | 101.55 |
| | | ABS | ABS | ABS | ABS |
| BRAKING – PHASE I | | | | | |
| Average Deceleration Rate | (ft/s ²) | 26.80 | 26.17 | 27.41 | 28.50 |
| BRAKING – PHASE II | | | | | |
| Average Deceleration Rate | (ft/s ²) | 26.47 | 26.07 | 27.59 | 29.11 |
| BRAKING – FINAL SCORE | | | | | |
| Deceleration Rate | (ft/s²) | 26.64 | 26.12 | 27.50 | 28.81 |
| Projected Stopping Distance from 60 mph | (feet) | 145.4 | 148.3 | 140.8 | 134.4 |

* Four-run average.

** Vehicle equipped with an electronic speed limiter.

Summary of Acceleration, Top Speed, and Brake Testing Data

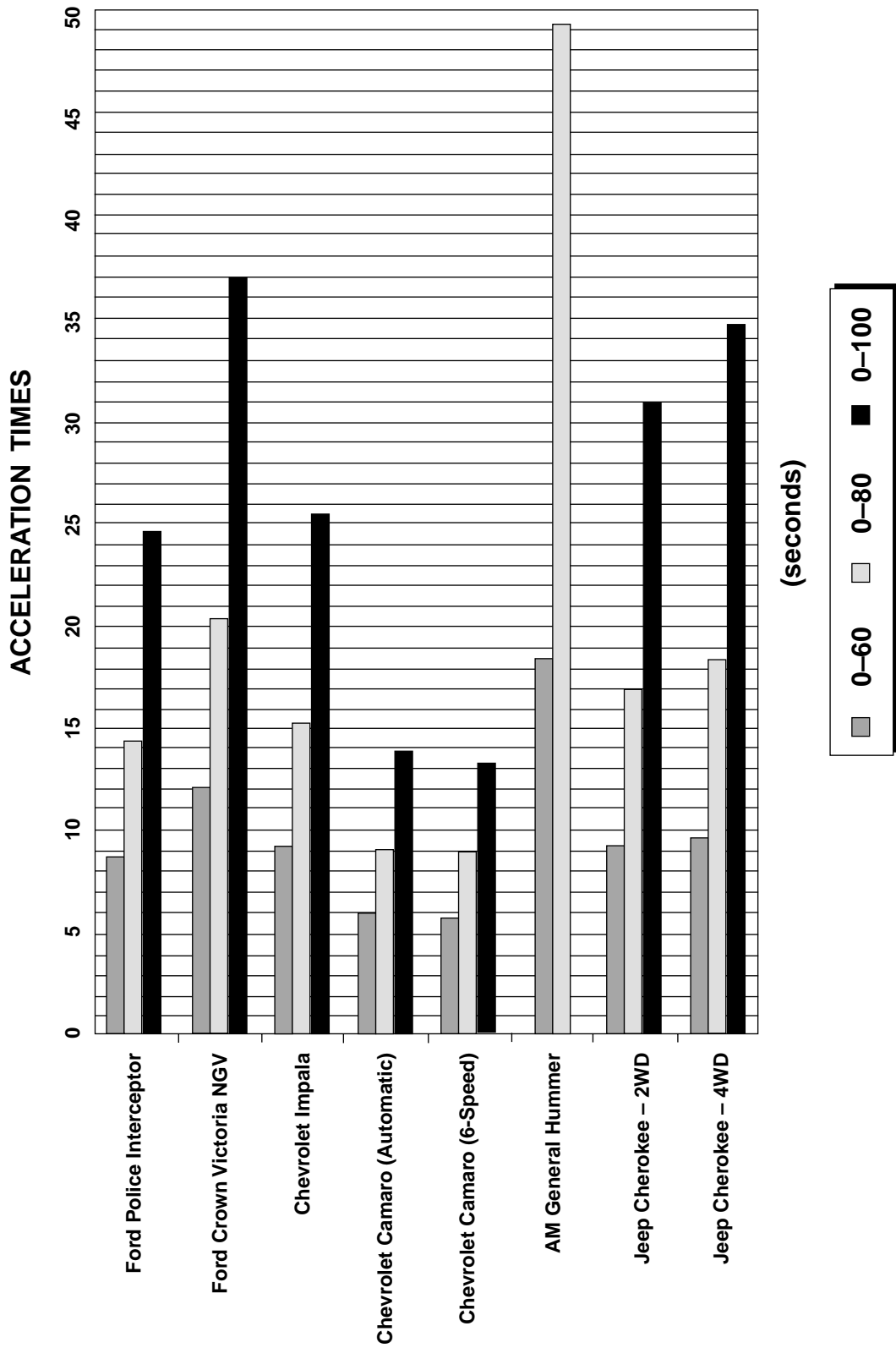
| ACCELERATION* | | Chevrolet Camaro (6-speed) 5.7L SPFI | AM General Hummer 6.5L Turbo Diesel | Jeep Cherokee (2WD) 4.0L MPFI | Jeep Cherokee (4WD) 4.0L MPFI |
|--|---------------------------|--|--|--|--|
| 0–20 mph | (sec.) | 1.72 | 2.51 | 1.88 | 1.94 |
| 0–30 mph | (sec.) | 2.56 | 4.87 | 3.18 | 3.29 |
| 0–40 mph | (sec.) | 3.36 | 8.10 | 4.63 | 4.80 |
| 0–50 mph | (sec.) | 4.58 | 12.63 | 6.82 | 7.16 |
| 0–60 mph | (sec.) | 5.77 | 18.55 | 9.18 | 9.71 |
| 0–70 mph | (sec.) | 7.23 | 27.92 | 12.25 | 13.04 |
| 0–80 mph | (sec.) | 9.03 | 49.27 | 16.99 | 18.24 |
| 0–90 mph | (sec.) | 10.90 | — | 22.80 | 24.71 |
| 0–100 mph | (sec.) | 13.35 | — | 30.93 | 34.53 |
| TOP SPEED | (mph) | 159** | 88** | 111** | 111** |
| DISTANCE TO REACH | | | | | |
| 110 mph | (miles) | .30 | — | 1.77 | 2.31 |
| 120 mph | (miles) | .40 | — | — | — |
| QUARTER MILE | | | | | |
| Time | (sec.) | 14.25 | 21.25 | 17.12 | 17.43 |
| Speed | (miles) | 103.48 | 63.35 | 80.25 | 78.60 |
| ABS | | | | | |
| BRAKING – PHASE I | | | | | |
| Average Deceleration Rate | (ft/s ²) | *** | 22.32 | 25.47 | 25.60 |
| BRAKING – PHASE II | | | | | |
| Average Deceleration Rate | (ft/s ²) | *** | 22.80 | 25.64 | 25.60 |
| BRAKING – FINAL SCORE | | | | | |
| Deceleration Rate | (ft/s²) | *** | 22.56 | 25.55 | 25.60 |
| Projected Stopping Distance from 60 mph | (feet) | *** | 171.6 | 151.5 | 151.3 |

* Four-run average.

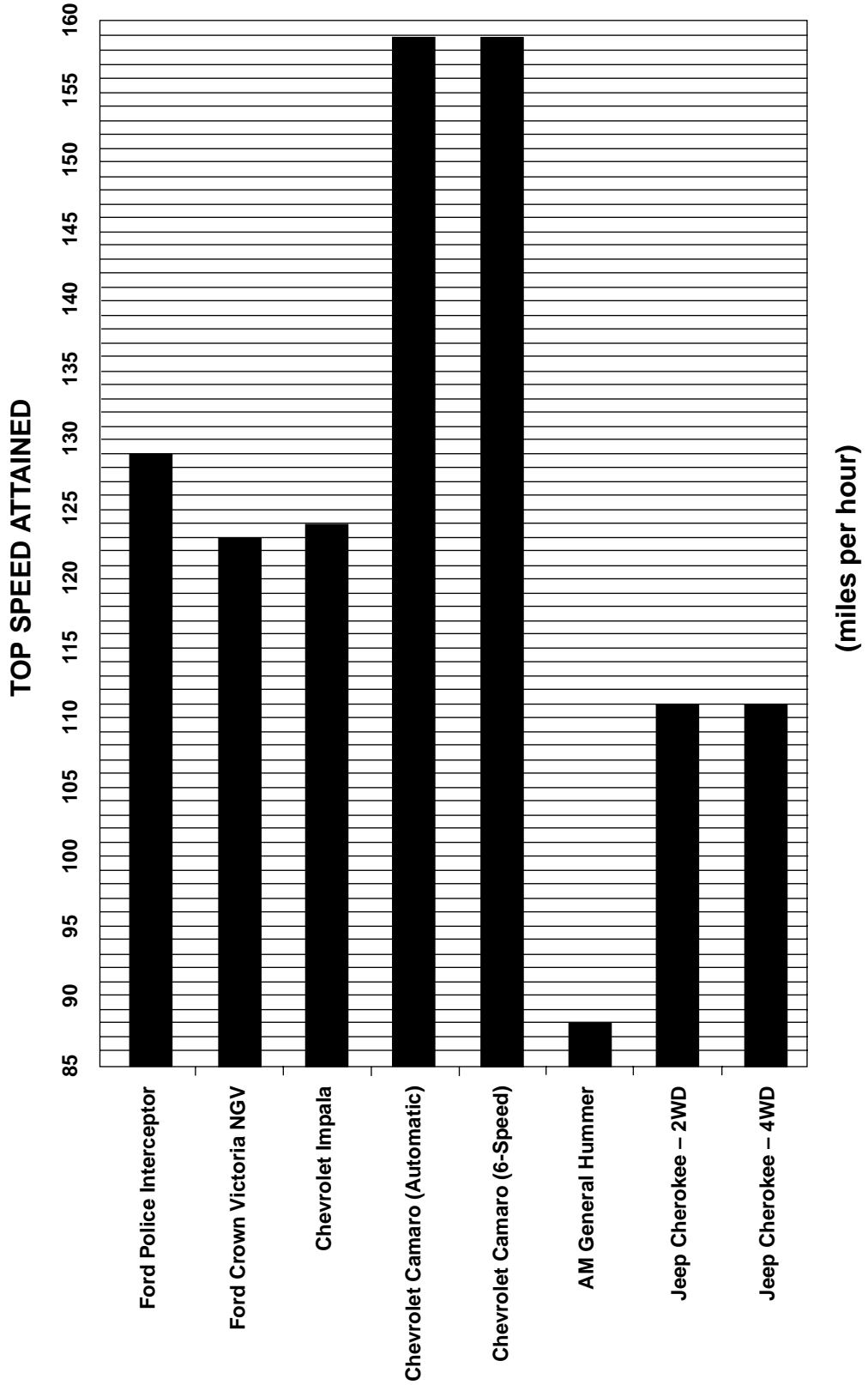
** Vehicle equipped with an electronic speed limiter.

*** Because the two Chevrolet Camaros have identical braking systems and are nearly identical in weight, only the automatic transmission equipped vehicle was subjected to the brake tests.

2001 ACCELERATION COMPARISON



2001 TOP SPEED COMPARISON



2001 Model Year Patrol Vehicle Testing

Acceleration and Top Speed Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds

DATE: September 16, 2000

MAKE & MODEL: Ford Police Interceptor 4.6L SPFI

BEGINNING TIME: 2:34 p.m.

WIND VELOCITY: 7 mph

WIND DIRECTION: 279°

TEMPERATURE: 59.9°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------|--------------------|-------|-------|-------|-------|---------|
| 0-60 | 9.75 sec. | 8.73 | 8.74 | 8.68 | 8.66 | 8.70 |
| 0-80 | 16.7 sec. | 14.37 | 14.49 | 14.23 | 14.30 | 14.35 |
| 0-100 | 27.4 sec. | 24.50 | 24.90 | 24.22 | 24.80 | 24.61 |

DISTANCE TO REACH: **110 MPH** .67 mile

120 MPH 1.18 mile

TOP SPEED ATTAINED: 129 mph

MAKE & MODEL: Ford Crown Victoria NGV 4.6L SPFI

BEGINNING TIME: 2:06 p.m.

WIND VELOCITY: 9.1 mph

WIND DIRECTION: 308°

TEMPERATURE: 58.5°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------|--------------------|-------|-------|-------|-------|---------|
| 0-60 | N/A | 12.03 | 12.30 | 11.99 | 12.23 | 12.14 |
| 0-80 | N/A | 19.87 | 20.75 | 20.18 | 20.71 | 20.38 |
| 0-100 | N/A | 34.73 | 38.48 | 36.46 | 38.39 | 37.02 |

DISTANCE TO REACH: **110 MPH** 1.37 mile

120 MPH 2.92 mile

TOP SPEED ATTAINED: 123 mph

* Michigan State Police minimum requirement.

Acceleration and Top Speed Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds

DATE: September 16, 2000

MAKE & MODEL: Chevrolet Impala 3.8L SPFI

BEGINNING TIME: 1:32 p.m.

WIND VELOCITY: 7 mph

WIND DIRECTION: 277°

TEMPERATURE: 57.4°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|--------------------|-------|-------|-------|-------|--------------|
| 0-60 | 9.7 sec. | 9.21 | 9.29 | 9.05 | 9.23 | 9.20 |
| 0-80 | 16.7 sec. | 15.11 | 15.49 | 14.92 | 15.39 | 15.23 |
| 0-100 | 27.4 sec. | 24.92 | 25.87 | 24.69 | 26.11 | 25.40 |

DISTANCE TO REACH: **110 MPH** .71 mile

120 MPH 2.01 mile

TOP SPEED ATTAINED: 124 mph

MAKE & MODEL: Chevrolet Camaro 5.7L SPFI (Automatic)

BEGINNING TIME: 12:39 p.m.

WIND VELOCITY: 6.8 mph

WIND DIRECTION: 278°

TEMPERATURE: 57.4°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|--------------------|-------|-------|-------|-------|--------------|
| 0-60 | 7.6 sec. | 5.97 | 5.83 | 5.83 | 5.84 | 5.87 |
| 0-80 | 12.4 sec. | 9.09 | 8.95 | 9.20 | 9.01 | 9.06 |
| 0-100 | 20.4 sec. | 13.94 | 13.94 | 13.78 | 14.04 | 13.93 |

DISTANCE TO REACH: **110 MPH** .33 mile

120 MPH .43 mile

TOP SPEED ATTAINED: 159 mph

* Michigan State Police minimum requirement.

2001 Model Year Patrol Vehicle Testing

Acceleration and Top Speed Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds

DATE: September 16, 2000

MAKE & MODEL: Chevrolet Camaro 5.7L SPFI (6-Speed)

BEGINNING TIME: 3:46 p.m.

WIND VELOCITY: 6.9 mph

WIND DIRECTION: 287°

TEMPERATURE: 60.5°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|--------------------|-------|-------|-------|-------|--------------|
| 0-60 | 7.6 sec. | 5.82 | 5.83 | 5.58 | 5.58 | 5.77 |
| 0-80 | 12.4 sec. | 9.14 | 9.07 | 8.75 | 9.15 | 9.03 |
| 0-100 | 20.4 sec. | 13.71 | 13.31 | 12.93 | 13.40 | 13.35 |

DISTANCE TO REACH: **110 MPH** .30 mile

120 MPH .40 mile

TOP SPEED ATTAINED: 159 mph

MAKE & MODEL: AM General Hummer 6.5L Turbo Diesel

BEGINNING TIME: 3:03 p.m.

WIND VELOCITY: 3.7 mph

WIND DIRECTION: 264°

TEMPERATURE: 61°

Acceleration

| SPEEDS | TIME REQUIREMENTS* | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|--------------------|-------|-------|-------|-------|--------------|
| 0-60 | N/A | 18.10 | 18.64 | 18.60 | 18.84 | 18.55 |
| 0-80 | N/A | 48.75 | 51.76 | 45.34 | 51.24 | 49.27 |
| 0-100 | N/A | N/A | N/A | N/A | N/A | N/A |

DISTANCE TO REACH: **110 MPH** N/A

120 MPH N/A

TOP SPEED ATTAINED: 88 mph

* Michigan State Police minimum requirement.

Acceleration and Top Speed Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds

DATE: September 16, 2000

MAKE & MODEL: Jeep Cherokee 4.0L MPFI (2WD)

BEGINNING TIME: 11:05 a.m.

WIND VELOCITY: 6.9 mph

WIND DIRECTION: 286°

TEMPERATURE: 53.3°

Acceleration

| SPEEDS | TIME | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|------------------|-------|-------|-------|-------|--------------|
| | REQUIREMENTS* | | | | | |
| 0-60 | 11.0 sec. | 9.40 | 9.18 | 9.00 | 9.14 | 9.18 |
| 0-80 | 21.0 sec. | 17.05 | 17.37 | 16.27 | 17.28 | 16.99 |
| 0-100 | 35.0 sec. | 30.71 | 32.14 | 28.92 | 31.95 | 30.93 |

DISTANCE TO REACH: **110 MPH** 1.77 mph **120 MPH** N/A

TOP SPEED ATTAINED: 111 mph

MAKE & MODEL: Jeep Cherokee 4.0L MPFI (4WD)

BEGINNING TIME: 11:32 a.m.

WIND VELOCITY: 6.7 mph

WIND DIRECTION: 305°

TEMPERATURE: 54.9°

Acceleration

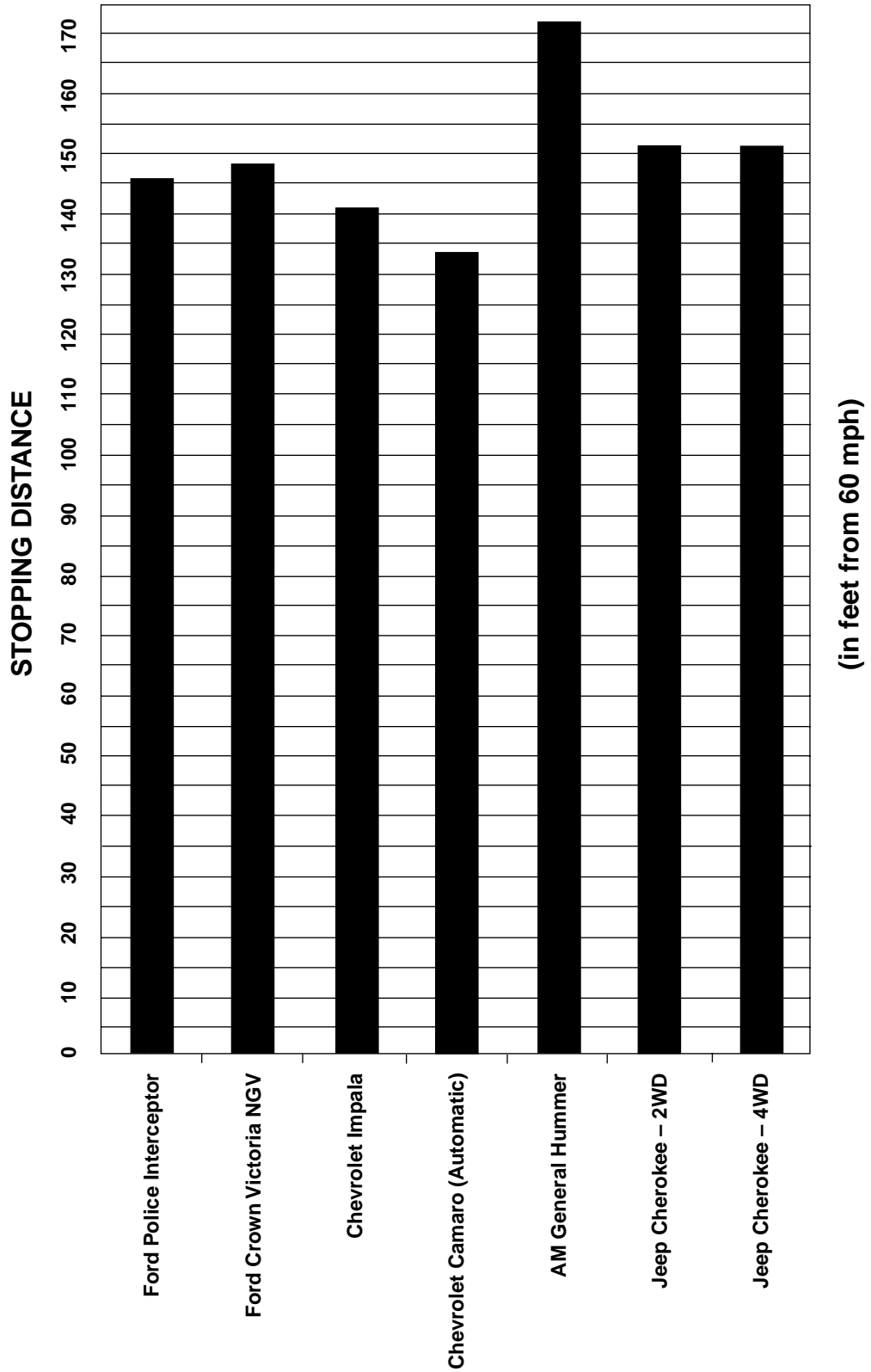
| SPEEDS | TIME | RUN#1 | RUN#2 | RUN#3 | RUN#4 | AVERAGE |
|--------------|------------------|-------|-------|-------|-------|--------------|
| | REQUIREMENTS* | | | | | |
| 0-60 | 12.3 sec. | 9.96 | 9.79 | 9.43 | 9.65 | 9.71 |
| 0-80 | 23.1 sec. | 18.33 | 18.80 | 17.62 | 18.20 | 18.24 |
| 0-100 | 45.0 sec. | 34.14 | 36.69 | 32.19 | 35.09 | 34.53 |

DISTANCE TO REACH: **110 MPH** 2.31 mile **120 MPH** N/A

TOP SPEED ATTAINED: 111 mph

* Michigan State Police minimum requirement.

2001 BRAKE TESTING COMPARISON



2001 Model Year Patrol Vehicle Testing

Brake Test Data

| | | | |
|------------------------|---------------------------------|----------------------|--------------------|
| TEST LOCATION: | DaimlerChrysler Proving Grounds | DATE: | September 16, 2000 |
| BEGINNING TIME: | 1:33 p.m. | TEMPERATURE: | 58.5°F |
| MAKE and MODEL: | Ford Police Interceptor 4.6L | BRAKE SYSTEM: | Antilock |

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | | |
|---------|-------------|-----|--------------|--------------------------|--------------|-------------------|
| Stop #1 | <u>60.1</u> | mph | <u>142.9</u> | feet | <u>27.19</u> | ft/s ² |
| Stop #2 | <u>60.6</u> | mph | <u>149.2</u> | feet | <u>26.47</u> | ft/s ² |
| Stop #3 | <u>60.7</u> | mph | <u>149.5</u> | feet | <u>26.51</u> | ft/s ² |
| Stop #4 | <u>60.4</u> | mph | <u>145.5</u> | feet | <u>26.97</u> | ft/s ² |
| Stop #5 | <u>60.3</u> | mph | <u>144.7</u> | feet | <u>27.03</u> | ft/s ² |
| Stop #6 | <u>60.5</u> | mph | <u>147.8</u> | feet | <u>26.64</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 26.80 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | | |
|---------|-------------|-----|--------------|--------------------------|--------------|-------------------|
| Stop #1 | <u>60.3</u> | mph | <u>148.5</u> | feet | <u>26.34</u> | ft/s ² |
| Stop #2 | <u>60.5</u> | mph | <u>146.0</u> | feet | <u>26.97</u> | ft/s ² |
| Stop #3 | <u>60.4</u> | mph | <u>149.3</u> | feet | <u>26.28</u> | ft/s ² |
| Stop #4 | <u>60.3</u> | mph | <u>145.3</u> | feet | <u>26.92</u> | ft/s ² |
| Stop #5 | <u>60.5</u> | mph | <u>152.1</u> | feet | <u>25.88</u> | ft/s ² |
| Stop #6 | <u>60.3</u> | mph | <u>147.9</u> | feet | <u>26.44</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 26.47 ft/s²

Phase III

| | <u>Yes/No</u> |
|--------------------------------------|---------------|
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 26.64 ft/s²

2001 Model Year Patrol Vehicle Testing

Brake Test Data

| | | | |
|------------------------|---------------------------------|----------------------|--------------------|
| TEST LOCATION: | DaimlerChrysler Proving Grounds | DATE: | September 16, 2000 |
| BEGINNING TIME: | 2:38 p.m. | TEMPERATURE: | 59.4°F |
| MAKE and MODEL: | Ford Crown Victoria 4.6L NGV | BRAKE SYSTEM: | Antilock |

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> |
|---------|-------------|-----|--------------|------|--------------------------------|
| Stop #1 | <u>60.6</u> | mph | <u>148.3</u> | feet | <u>26.64</u> ft/s ² |
| Stop #2 | <u>60.7</u> | mph | <u>152.2</u> | feet | <u>26.04</u> ft/s ² |
| Stop #3 | <u>59.8</u> | mph | <u>146.1</u> | feet | <u>26.33</u> ft/s ² |
| Stop #4 | <u>60.4</u> | mph | <u>153.9</u> | feet | <u>25.50</u> ft/s ² |
| Stop #5 | <u>60.0</u> | mph | <u>146.3</u> | feet | <u>26.47</u> ft/s ² |
| Stop #6 | <u>60.1</u> | mph | <u>149.2</u> | feet | <u>26.04</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 26.17 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> |
|---------|-------------|-----|--------------|------|--------------------------------|
| Stop #1 | <u>60.6</u> | mph | <u>156.2</u> | feet | <u>25.29</u> ft/s ² |
| Stop #2 | <u>60.9</u> | mph | <u>149.5</u> | feet | <u>26.68</u> ft/s ² |
| Stop #3 | <u>60.8</u> | mph | <u>154.8</u> | feet | <u>25.69</u> ft/s ² |
| Stop #4 | <u>60.7</u> | mph | <u>153.2</u> | feet | <u>25.87</u> ft/s ² |
| Stop #5 | <u>60.4</u> | mph | <u>148.7</u> | feet | <u>26.39</u> ft/s ² |
| Stop #6 | <u>60.8</u> | mph | <u>150.0</u> | feet | <u>26.51</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 26.07 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 26.12 ft/s²

2001 Model Year Patrol Vehicle Testing

Brake Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds DATE: September 16, 2000
BEGINNING TIME: 1:58 p.m TEMPERATURE: 58.3°F
MAKE and MODEL: Chevrolet Impala 3.8L BRAKE SYSTEM: Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | | |
|---------|-------------|-----|--------------|--------------------------|--------------|-------------------|
| Stop #1 | <u>60.4</u> | mph | <u>143.3</u> | feet | <u>27.38</u> | ft/s ² |
| Stop #2 | <u>60.5</u> | mph | <u>143.9</u> | feet | <u>27.36</u> | ft/s ² |
| Stop #3 | <u>60.6</u> | mph | <u>147.2</u> | feet | <u>26.83</u> | ft/s ² |
| Stop #4 | <u>60.7</u> | mph | <u>143.8</u> | feet | <u>27.56</u> | ft/s ² |
| Stop #5 | <u>60.5</u> | mph | <u>144.3</u> | feet | <u>27.28</u> | ft/s ² |
| Stop #6 | <u>60.4</u> | mph | <u>139.8</u> | feet | <u>28.07</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 27.41 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.4</u> | mph | <u>142.8</u> | feet | <u>27.48</u> | ft/s ² |
| Stop #2 | <u>60.5</u> | mph | <u>142.1</u> | feet | <u>27.71</u> | ft/s ² |
| Stop #3 | <u>60.0</u> | mph | <u>138.4</u> | feet | <u>27.98</u> | ft/s ² |
| Stop #4 | <u>60.1</u> | mph | <u>139.6</u> | feet | <u>27.83</u> | ft/s ² |
| Stop #5 | <u>60.6</u> | mph | <u>141.2</u> | feet | <u>27.97</u> | ft/s ² |
| Stop #6 | <u>60.3</u> | mph | <u>147.2</u> | feet | <u>26.57</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 27.59 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 27.50 ft/s²

Michigan State Police minimum requirements—25.79 ft/s².

2001 Model Year Patrol Vehicle Testing

Brake Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds **DATE:** September 16, 2000
BEGINNING TIME: 1:05 p.m. **TEMPERATURE:** 58.5°F
MAKE and MODEL: Chevrolet Camaro 5.7L (Automatic) **BRAKE SYSTEM:** Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | | |
|---------|-------------|-----|--------------|--------------------------|--------------|-------------------|
| Stop #1 | <u>60.5</u> | mph | <u>137.2</u> | feet | <u>28.70</u> | ft/s ² |
| Stop #2 | <u>61.1</u> | mph | <u>141.6</u> | feet | <u>28.36</u> | ft/s ² |
| Stop #3 | <u>60.5</u> | mph | <u>138.6</u> | feet | <u>28.41</u> | ft/s ² |
| Stop #4 | <u>60.8</u> | mph | <u>142.7</u> | feet | <u>27.86</u> | ft/s ² |
| Stop #5 | <u>60.5</u> | mph | <u>136.3</u> | feet | <u>28.88</u> | ft/s ² |
| Stop #6 | <u>60.7</u> | mph | <u>137.5</u> | feet | <u>28.82</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 28.50 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.6</u> | mph | <u>135.8</u> | feet | <u>29.09</u> | ft/s ² |
| Stop #2 | <u>60.0</u> | mph | <u>132.1</u> | feet | <u>29.31</u> | ft/s ² |
| Stop #3 | <u>60.2</u> | mph | <u>136.9</u> | feet | <u>28.47</u> | ft/s ² |
| Stop #4 | <u>60.8</u> | mph | <u>135.9</u> | feet | <u>29.26</u> | ft/s ² |
| Stop #5 | <u>60.2</u> | mph | <u>131.6</u> | feet | <u>29.62</u> | ft/s ² |
| Stop #6 | <u>59.9</u> | mph | <u>133.5</u> | feet | <u>28.91</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 29.11 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 28.81 ft/s²

Michigan State Police minimum requirements—25.75 ft/s².

Brake Test Data

| | | | |
|------------------------|--|----------------------|---------------------------|
| TEST LOCATION: | <u>DaimlerChrysler Proving Grounds</u> | DATE: | <u>September 16, 2000</u> |
| BEGINNING TIME: | <u>3:39 p.m.</u> | TEMPERATURE: | <u>61.3°F</u> |
| MAKE and MODEL: | <u>AM General Hummer 6.5L</u> | BRAKE SYSTEM: | <u>Antilock</u> |

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | |
|---------|-----------------|-------------------|--|--------------------------|-------------------|
| Stop #1 | <u>60.3</u> mph | <u>169.2</u> feet | | <u>23.11</u> | ft/s ² |
| Stop #2 | <u>60.5</u> mph | <u>181.1</u> feet | | <u>21.74</u> | ft/s ² |
| Stop #3 | <u>60.4</u> mph | <u>177.3</u> feet | | <u>22.13</u> | ft/s ² |
| Stop #4 | <u>60.3</u> mph | <u>181.3</u> feet | | <u>21.57</u> | ft/s ² |
| Stop #5 | <u>60.3</u> mph | <u>171.4</u> feet | | <u>22.82</u> | ft/s ² |
| Stop #6 | <u>59.8</u> mph | <u>170.7</u> feet | | <u>22.53</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 22.32 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | |
|---------|-----------------|-------------------|--|--------------------------|-------------------|
| Stop #1 | <u>60.8</u> mph | <u>172.6</u> feet | | <u>23.04</u> | ft/s ² |
| Stop #2 | <u>60.2</u> mph | <u>177.1</u> feet | | <u>22.01</u> | ft/s ² |
| Stop #3 | <u>60.8</u> mph | <u>170.8</u> feet | | <u>23.28</u> | ft/s ² |
| Stop #4 | <u>60.5</u> mph | <u>167.5</u> feet | | <u>23.50</u> | ft/s ² |
| Stop #5 | <u>60.6</u> mph | <u>178.6</u> feet | | <u>22.12</u> | ft/s ² |
| Stop #6 | <u>60.3</u> mph | <u>171.0</u> feet | | <u>22.87</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 22.80 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 22.56 ft/s²

2001 Model Year Patrol Vehicle Testing

Brake Test Data

TEST LOCATION: DaimlerChrysler Proving Grounds **DATE:** September 16, 2000
BEGINNING TIME: 11:32 a.m. **TEMPERATURE:** 55°F
MAKE and MODEL: Jeep Cherokee 4.0L (2WD) **BRAKE SYSTEM:** Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | | |
|---------|-------------|-----|--------------|--------------------------|--------------|-------------------|
| Stop #1 | <u>60.1</u> | mph | <u>147.9</u> | feet | <u>26.27</u> | ft/s ² |
| Stop #2 | <u>60.7</u> | mph | <u>152.7</u> | feet | <u>25.95</u> | ft/s ² |
| Stop #3 | <u>60.2</u> | mph | <u>153.8</u> | feet | <u>25.34</u> | ft/s ² |
| Stop #4 | <u>60.0</u> | mph | <u>147.4</u> | feet | <u>26.27</u> | ft/s ² |
| Stop #5 | <u>60.7</u> | mph | <u>161.1</u> | feet | <u>24.60</u> | ft/s ² |
| Stop #6 | <u>60.2</u> | mph | <u>159.9</u> | feet | <u>24.38</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 25.47 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.4</u> | mph | <u>145.7</u> | feet | <u>26.93</u> | ft/s ² |
| Stop #2 | <u>59.6</u> | mph | <u>147.9</u> | feet | <u>25.83</u> | ft/s ² |
| Stop #3 | <u>60.4</u> | mph | <u>150.2</u> | feet | <u>26.13</u> | ft/s ² |
| Stop #4 | <u>60.0</u> | mph | <u>156.2</u> | feet | <u>24.79</u> | ft/s ² |
| Stop #5 | <u>60.4</u> | mph | <u>152.3</u> | feet | <u>25.76</u> | ft/s ² |
| Stop #6 | <u>60.1</u> | mph | <u>159.4</u> | feet | <u>24.37</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 25.64 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 25.55 ft/s²

Brake Test Data

| | | | |
|------------------------|--|----------------------|---------------------------|
| TEST LOCATION: | <u>DaimlerChrysler Proving Grounds</u> | DATE: | <u>September 16, 2000</u> |
| BEGINNING TIME: | <u>12:37 p.m.</u> | TEMPERATURE: | <u>57.4°F</u> |
| MAKE and MODEL: | <u>Jeep Cherokee 4.0L (4WD)</u> | BRAKE SYSTEM: | <u>Antilock</u> |

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|--------------------------|--------------------------------|
| Stop #1 | <u>60.2</u> | mph | <u>155.9</u> | feet | <u>25.00</u> ft/s ² |
| Stop #2 | <u>59.8</u> | mph | <u>150.6</u> | feet | <u>25.54</u> ft/s ² |
| Stop #3 | <u>60.9</u> | mph | <u>156.3</u> | feet | <u>25.52</u> ft/s ² |
| Stop #4 | <u>60.6</u> | mph | <u>151.9</u> | feet | <u>26.00</u> ft/s ² |
| Stop #5 | <u>60.4</u> | mph | <u>153.5</u> | feet | <u>25.56</u> ft/s ² |
| Stop #6 | <u>59.7</u> | mph | <u>147.8</u> | feet | <u>25.94</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 25.60 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.9</u> | mph | <u>152.3</u> | feet | <u>26.19</u> | ft/s ² |
| Stop #2 | <u>60.3</u> | mph | <u>155.0</u> | feet | <u>25.23</u> | ft/s ² |
| Stop #3 | <u>60.5</u> | mph | <u>149.7</u> | feet | <u>26.30</u> | ft/s ² |
| Stop #4 | <u>61.0</u> | mph | <u>157.4</u> | feet | <u>25.43</u> | ft/s ² |
| Stop #5 | <u>60.3</u> | mph | <u>148.8</u> | feet | <u>26.28</u> | ft/s ² |
| Stop #6 | <u>59.7</u> | mph | <u>158.5</u> | feet | <u>24.19</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 25.60 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 25.60 ft/s²

Ergonomics and Communications Evaluation

Ergonomics and Communications

Test Objective

Rate each test vehicle's ability to:

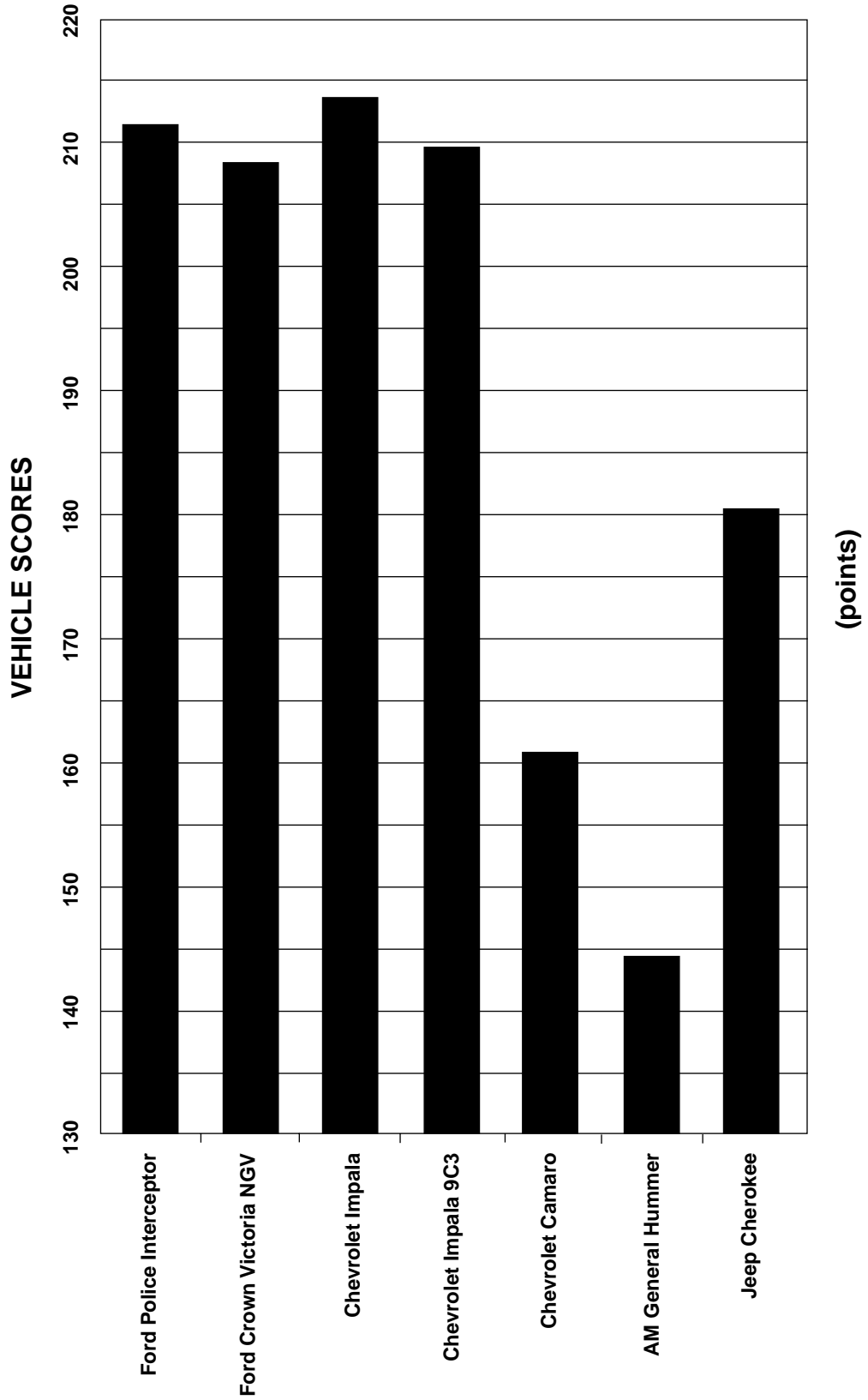
- Provide a suitable environment for the patrol officer in the performance of his/her assigned tasks.
- Accommodate the required communications and emergency warning equipment and assess the relative difficulty of such installations.

Test Methodology

Utilizing the ergonomics portion of the form, a minimum of four officers will individually and

independently compare and score each test vehicle on the various comfort, instrumentation, and visibility items. The installation and communications portion of the evaluation will be conducted by personnel from the Michigan State Police Communications Division and Vehicle and Travel Services, based upon the relative difficulty of the necessary installations. Each factor will be graded on a 1 to 10 scale, with 1 representing "totally unacceptable," 5 representing "average," and 10 representing "superior." The scores will be averaged to minimize personal prejudice for or against any given vehicle.

2001 ERGONOMICS/COMMUNICATIONS COMPARISON



Ergonomics and Communications Test Data

| ERGONOMICS | Ford Police Interceptor | Ford Crown Victoria NGV | Chevrolet Impala |
|--|------------------------------------|------------------------------------|-----------------------------|
| FRONT SEAT | | | |
| Padding | 7.00 | 7.00 | 7.50 |
| Depth of Bucket Seat | 6.80 | 6.80 | 7.10 |
| Adjustability—Front to Rear | 7.80 | 7.80 | 8.30 |
| Upholstery | 6.60 | 6.60 | 7.50 |
| Bucket Seat Design | 6.60 | 6.60 | 7.50 |
| Headroom | 7.90 | 7.90 | 7.40 |
| Seatbelts | 7.60 | 7.60 | 7.00 |
| Ease of Entry and Exit | 7.90 | 7.90 | 7.80 |
| Overall Comfort Rating | 7.50 | 7.50 | 7.90 |
| REAR SEAT | | | |
| Legroom—Front Seat Back | 6.30 | 6.30 | 7.10 |
| Ease of Entry and Exit | 6.70 | 6.70 | 6.80 |
| INSTRUMENTATION | | | |
| Clarity | 8.00 | 8.00 | 8.20 |
| Placement | 8.00 | 8.00 | 8.40 |
| VEHICLE CONTROLS | | | |
| Pedals, Size and Position | 7.90 | 7.90 | 8.30 |
| Power Window Switch | 8.20 | 8.20 | 8.40 |
| Inside Door Lock Switch | 7.80 | 7.80 | 7.70 |
| Automatic Door Lock Switch | 8.00 | 8.00 | 7.10 |
| Outside Mirror Controls | 7.50 | 7.50 | 7.40 |
| Steering Wheel, Size, Tilt Release, and Surface | 7.90 | 7.90 | 8.00 |
| Heat/AC Vent Placement and Adjustability | 7.78 | 7.78 | 8.30 |
| VISIBILITY | | | |
| Front (Windshield) | 8.00 | 8.00 | 8.10 |
| Rear (Back Window) | 7.40 | 7.40 | 6.70 |
| Left Rear Quarter | 7.40 | 7.40 | 7.30 |
| Right Rear Quarter | 7.40 | 7.40 | 7.10 |
| Outside Rearview Mirrors | 7.30 | 7.30 | 7.50 |
| COMMUNICATIONS | | | |
| Dashboard Accessibility | 7.80 | 7.80 | 7.20 |
| Trunk Accessibility | 8.20 | 6.07 | 8.20 |
| Engine Compartment | 8.00 | 7.22 | 7.78 |
| TOTAL SCORES | 211.28 | 208.37 | 213.58 |

Ergonomics and Communications Test Data

| ERGONOMICS | Chevrolet Impala 9C3 | Chevrolet Camaro |
|--|---------------------------------|-----------------------------|
| FRONT SEAT | | |
| Padding | 7.22 | 6.00 |
| Depth of Bucket Seat | 6.56 | 5.70 |
| Adjustability—Front to Rear | 8.11 | 6.40 |
| Upholstery | 7.33 | 6.40 |
| Bucket Seat Design | 7.11 | 5.90 |
| Headroom | 7.33 | 5.40 |
| Seatbelts | 7.67 | 5.00 |
| Ease of Entry and Exit | 8.11 | 3.90 |
| Overall Comfort Rating | 7.78 | 5.20 |
| REAR SEAT | | |
| Legroom—Front Seat Back | 7.11 | 2.00 |
| Ease of Entry and Exit | 7.22 | 1.80 |
| INSTRUMENTATION | | |
| Clarity | 8.11 | 6.90 |
| Placement | 8.33 | 6.90 |
| VEHICLE CONTROLS | | |
| Pedals, Size and Position | 8.22 | 7.20 |
| Power Window Switch | 8.78 | 7.90 |
| Inside Door Lock Switch | 7.56 | 7.90 |
| Automatic Door Lock Switch | 6.89 | 7.80 |
| Outside Mirror Controls | 7.11 | 6.70 |
| Steering Wheel, Size, Tilt Release, and Surface | 7.89 | 7.60 |
| Heat/AC Vent Placement and Adjustability | 8.22 | 7.78 |
| VISIBILITY | | |
| Front (Windshield) | 8.22 | 6.60 |
| Rear (Back Window) | 6.89 | 5.30 |
| Left Rear Quarter | 7.22 | 4.50 |
| Right Rear Quarter | 7.00 | 4.44 |
| Outside Rearview Mirrors | 7.22 | 5.00 |
| COMMUNICATIONS | | |
| Dashboard Accessibility | 7.47 | 3.78 |
| Trunk Accessibility | 7.75 | 5.00 |
| Engine Compartment | 5.11 | 5.78 |
| TOTAL SCORES | 209.55 | 160.87 |

Ergonomics and Communications Test Data

| ERGONOMICS | AM General Hummer | DaimlerChrysler Jeep Cherokee |
|--|------------------------------|--|
| FRONT SEAT | | |
| Padding | 5.00 | 6.80 |
| Depth of Bucket Seat | 4.90 | 6.70 |
| Adjustability—Front to Rear | 5.10 | 5.89 |
| Upholstery | 6.90 | 6.70 |
| Bucket Seat Design | 5.30 | 5.89 |
| Headroom | 7.90 | 6.80 |
| Seatbelts | 5.78 | 6.44 |
| Ease of Entry and Exit | 3.60 | 6.30 |
| Overall Comfort Rating | 5.00 | 6.22 |
| REAR SEAT | | |
| Legroom—Front Seat Back | 4.30 | 3.60 |
| Ease of Entry and Exit | 3.70 | 4.00 |
| INSTRUMENTATION | | |
| Clarity | 4.70 | 6.50 |
| Placement | 4.70 | 6.70 |
| VEHICLE CONTROLS | | |
| Pedals, Size and Position | 6.11 | 6.30 |
| Power Window Switch | 5.90 | 7.10 |
| Inside Door Lock Switch | 4.70 | 6.90 |
| Automatic Door Lock Switch | 5.80 | 6.80 |
| Outside Mirror Controls | 3.70 | 7.30 |
| Steering Wheel, Size, Tilt Release, and Surface | 4.50 | 6.40 |
| Heat/AC Vent Placement and Adjustability | 6.56 | 7.00 |
| VISIBILITY | | |
| Front (Windshield) | 5.90 | 7.80 |
| Rear (Back Window) | 3.40 | 7.20 |
| Left Rear Quarter | 3.20 | 7.60 |
| Right Rear Quarter | 3.90 | 7.70 |
| Outside Rearview Mirrors | 5.80 | 6.30 |
| COMMUNICATIONS | | |
| Dashboard Accessibility | 5.73 | 4.80 |
| Trunk Accessibility | 6.80 | 6.73 |
| Engine Compartment | 5.56 | 6.00 |
| TOTAL SCORES | 144.43 | 180.47 |

Fuel Economy Evaluation

Fuel Economy

Test Objective

Determine the fuel economy potential of all vehicles being evaluated. The data used for scoring are both valid and reliable in a comparison sense, while not necessarily being an accurate predictor of actual fuel economy in police patrol service.

Test Methodology

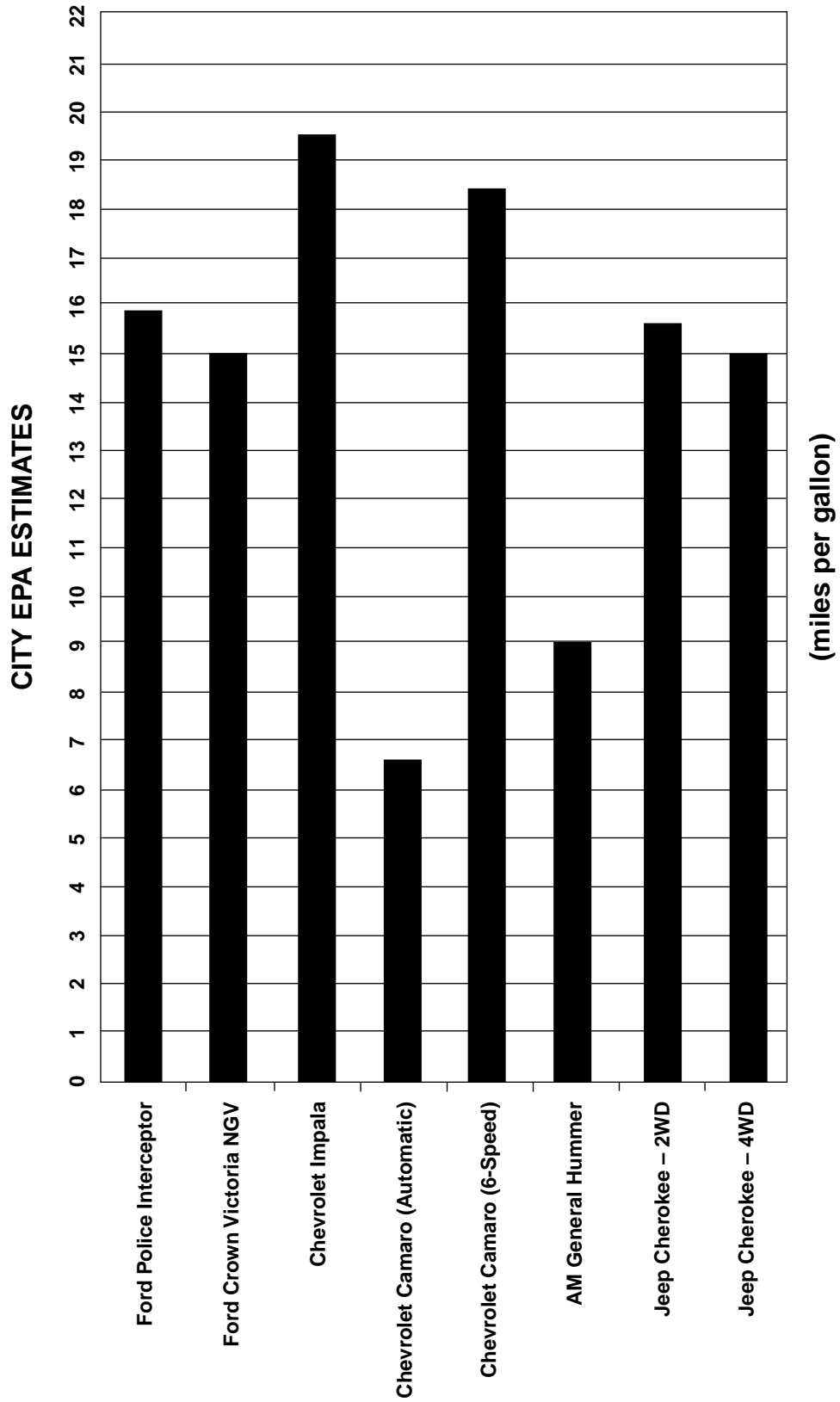
The vehicles will be scored based on estimates for city fuel economy to the nearest 1/10th mile per gallon (mpg) developed from data supplied by the vehicle manufacturer and certified by the Environmental Protection Agency (EPA).

| Vehicles Make/Model/Engine | EPA Miles Per Gallon | | |
|--|----------------------|---------|----------|
| | City* | Highway | Combined |
| Ford Police Interceptor 4.6L SPFI | 16 (15.8) | 22 | 18 |
| Ford Crown Victoria 4.6L SPFI NGV | 15 (15.0) | 23 | 18 |
| Chevrolet Impala 3.8L SPFI | 20 (19.5) | 29 | 23 |
| Chevrolet Camaro 5.7L SPFI (Automatic) | 17 (16.6) | 27 | 20 |
| Chevrolet Camaro 5.7L SPFI (6-Speed) | 18 (18.4) | 29 | 22 |
| AM General 6.5L Hummer (Turbo Diesel) | 9 (9.0) | 10 | ** |
| DaimlerChrysler 4.0L MPFI Jeep Cherokee (2 WD) | 16 (15.6) | 21 | 18 |
| DaimlerChrysler 4.0L MPFI Jeep Cherokee (4WD) | 15 (15.0) | 20 | 17 |

* Scored on city mileage only to the nearest 1/10 mpg.

** Class III vehicle—not tested to normal EPA requirement.

2001 FUEL ECONOMY COMPARISON



Michigan State Police Scoring and Bid Adjustment Methodology*

Step I: Raw Scores

Raw scores are developed, through testing, for each vehicle in each of six evaluation categories. The raw scores are expressed in terms of seconds, feet per second², miles per hour, points, and miles per gallon.

| VEHICLE DYNAM. (seconds) | ACCEL. (seconds) | BRAKING RATE (ft/s ²) | TOP SPEED (mph) | ERGONOMICS & COMMUN. (points) | FUEL ECONOMY (mpg) |
|--------------------------|------------------|-----------------------------------|-----------------|-------------------------------|--------------------|
| 92.210 | 45.790 | 26.380 | 115.000 | 173.900 | 14.300 |

Step II: Deviation Factor

In each evaluation category, the best scoring vehicle's score is used as the benchmark against which each of the other vehicles' scores are compared. (In the Vehicle Dynamics and Acceleration categories the lowest score is best, while in the remainder of the categories the highest score is best.) The best scoring vehicle in a given category received a deviation factor of "0." The "deviation factor" is then calculated by determining the absolute difference between each vehicle's raw score and the best score in that category. The absolute difference is then divided by the best score, with the result being the "deviation factor."

| CAR MAKE MODEL | TOP SPEED |
|----------------|------------------------|
| CAR "A" | 115.000 .042 |
| CAR "B" | 118.800 .010 |
| CAR "C" | 117.900 .018 |
| CAR "D" | 120.000 0 |

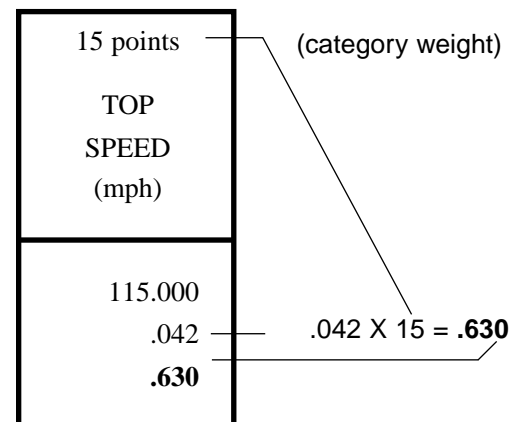
Example:

| | | | | |
|----------------------|-------------------------------|---------------------|------------|----------------------------|
| Best Score (Car "D") | Other Vehicle Score (Car "A") | Absolute Difference | Best Score | Deviation Factor (Car "A") |
| 120.000 | 115.000 | = 5 | / 120.000 | = .042 |

Step III: Weighted Category Score

Each vehicle's weighted category score is determined by multiplying the deviation factor (as determined in Step II) by the category weight.

RAW SCORE
DEVIATION FACTOR
WEIGHTED CATEGORY SCORE



*All mathematical computations are to be rounded to the third decimal place.

Step IV: Total Weighted Score

Adding together the six weighted category scores for that vehicle derives the total weighted score for each vehicle.

Example:

| CAR | 30 pts. VEH. DYN. (seconds) | 20 pts. ACCEL. (seconds) | 20 pts. BRAKE DECEL. (ft/s²) | 15 pts. TOP SPEED (mph) | 10 pts. ERGO/ COMM. (points) | 5 pts. FUEL ECON. (mpg) | TOTAL WEIGHTED SCORE |
|------------|--|---|--|--|---|--|-------------------------------------|
| Car "A" | 92.210 .018 .540 | 45.790 .163 3.260 | 26.380 0 0 | 115.000 .042 .630 | 173.900 .184 1.840 | 14.300 0 0 | 6.270 |

Step V: Bid Adjustment Figure

The bid adjustment figure that we have chosen to use is 1 percent of the lowest bid price received. As an example, in this and the following two steps, the lowest bid price received was \$15,238.00, which results in a bid adjustment figure of **\$152.38**.

STEP VI: Actual Dollar Adjustment

The actual dollar adjustment for a vehicle is determined by multiplying that vehicle's total weighted score by the bid adjustment figure as shown at right.

| TOTAL WTD. SCORE | BID ADJ. FIGURE | ACTUAL DOLLAR ADJ. |
|---------------------------------|--------------------------------|-----------------------------------|
| X | | = |
| 6.270 | \$152.38 | \$955.42 |

STEP VII: Adjusted Bid Price

The actual dollar adjustment amount arrived at for each vehicle is added to that vehicle's bid price. Provided other necessary approvals are received, the vehicle with the lowest adjusted bid price will be the vehicle purchased. (The amount paid for the purchased vehicles will be the actual bid price.)

| ACTUAL DOLLAR ADJ. | ACTUAL BID PRICE | ADJ. BID PRICE |
|-----------------------------------|---------------------------------|-------------------------------|
| + | | = |
| \$955.42 | \$15,473.00 | \$16,428.42 |

Appendix I: Performance Comparisons of 2000 and 2001 Test Vehicles

The following charts illustrate the scores achieved by each make and model of vehicle tested for model years 2000 and 2001. The charts presented are for the following performance categories:

Vehicle Dynamics
Acceleration 0–60 mph
Acceleration 0–80 mph
Acceleration 0–100 mph
Top Speed
Braking (Calculated 60–0 mph Stopping Distance)

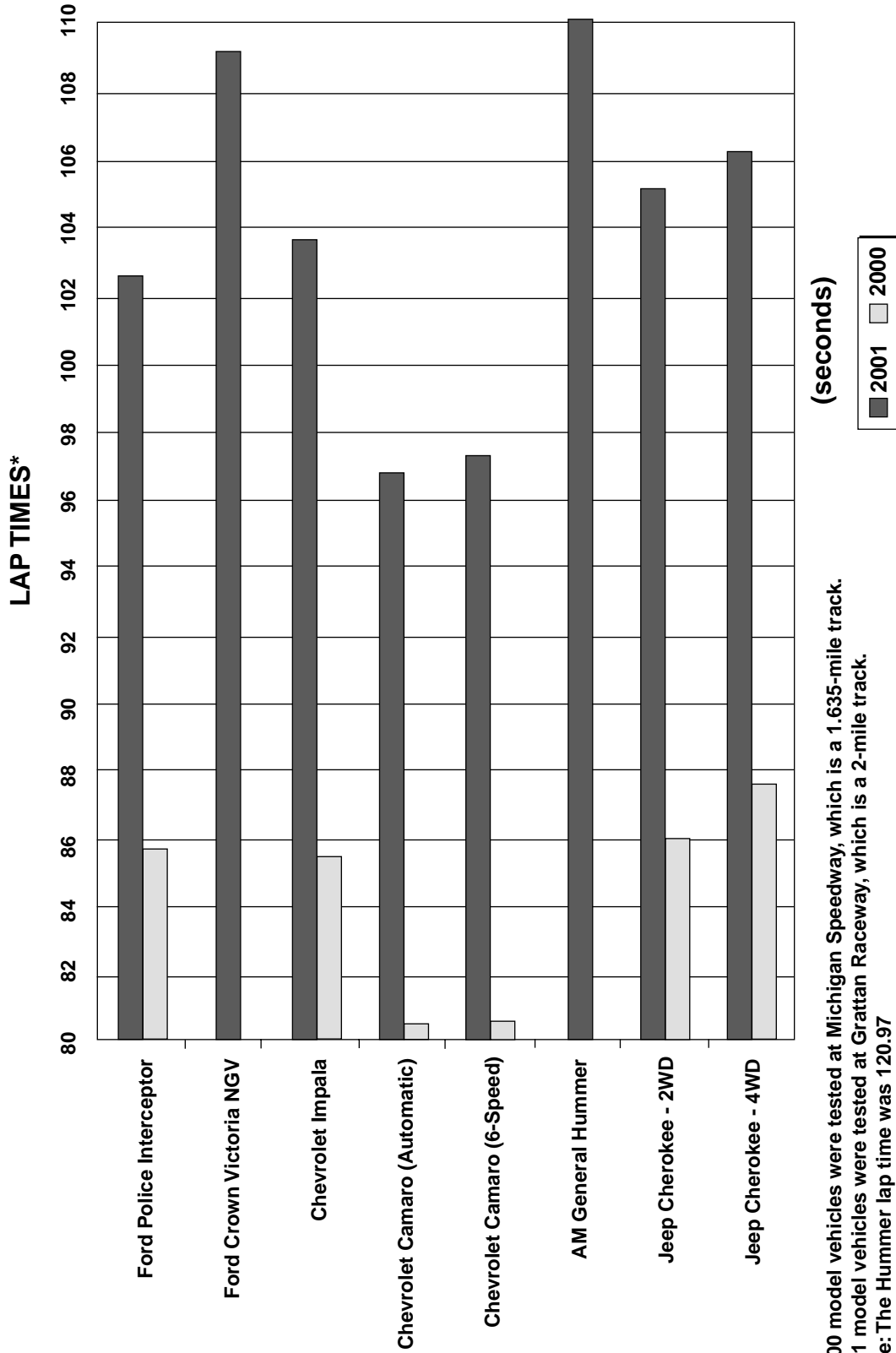
The reader should bear in mind the following information regarding variables when reviewing the 2000–2001 performance comparison charts in appendix I. While as many variables as possible are eliminated from a given year's testing, those that occur over the span of a full year are sometimes impossible to eliminate.

The acceleration, top speed, and brake testing of both the 2000 and 2001 model year vehicles were conducted in the latter half of September. Temperatures on the test

day in September 1999 (year 2000 models) ranged between 62° F at the start of testing to a high of approximately 75° F during the afternoon. Temperatures during the testing in 2000 varied, ranging between 40° F when testing started, to an afternoon high of 62° F. Such factors as temperature, humidity, and barometric pressure affect the performance of internal combustion engines and brake components and may cause minor differences from 1 year's evaluation to the next.

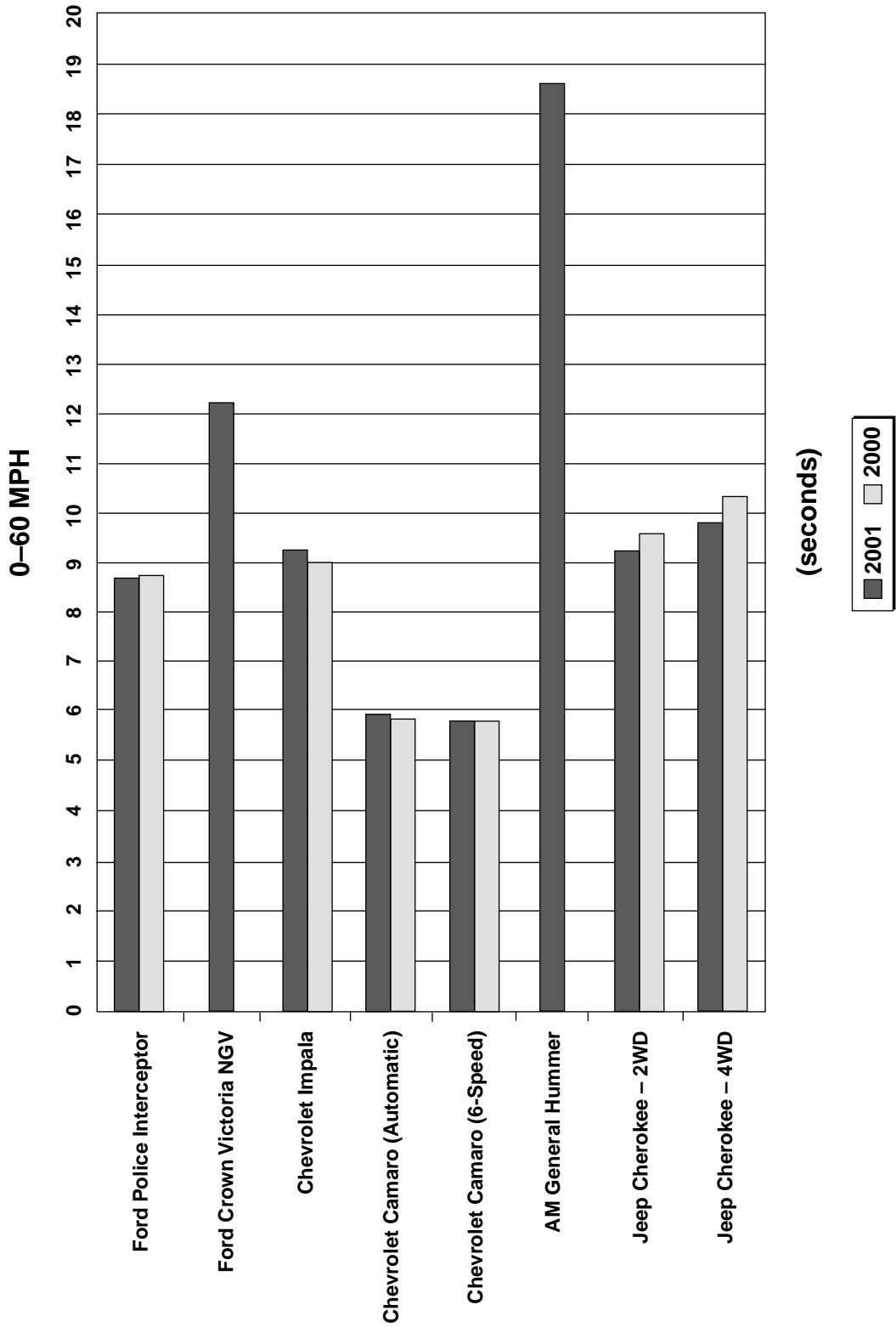
Another factor to be considered is the individual differences between two cars of the same make and model. The test cars that we evaluate are representative of their given make and model. Other cars of the same make and model will not, however, be exactly the same, particularly when it comes to performance. (It is well known that two consecutive cars off the same assembly line will perform slightly differently from each other.) Minor differences in performance from year to year within the same make and model are not only possible, but are to be expected.

2000-01 VEHICLE DYNAMICS COMPARISON

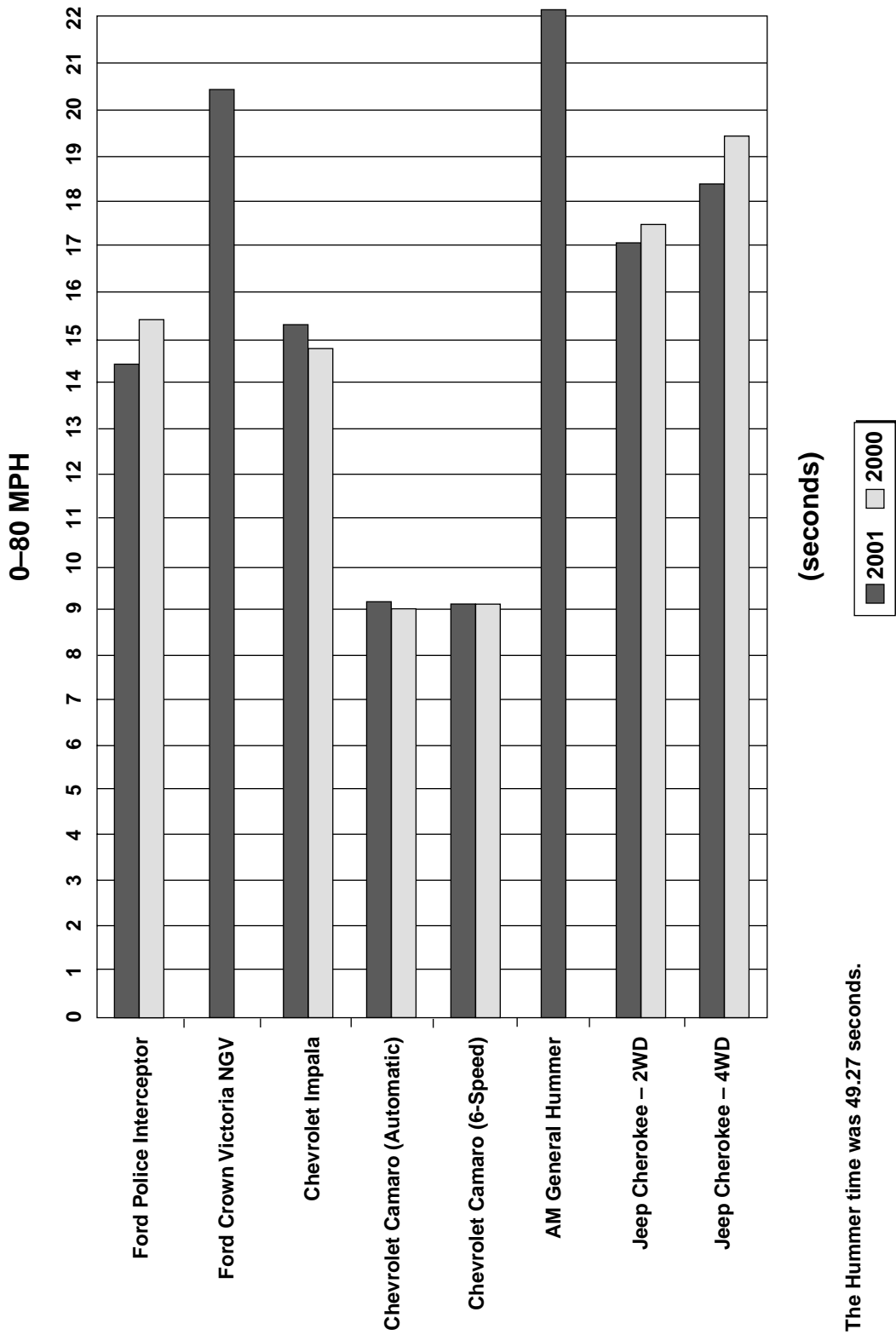


*2000 model vehicles were tested at Michigan Speedway, which is a 1.635-mile track.
 2001 model vehicles were tested at Grattan Raceway, which is a 2-mile track.
 Note: The Hummer lap time was 120.97

2000-01 ACCELERATION COMPARISON

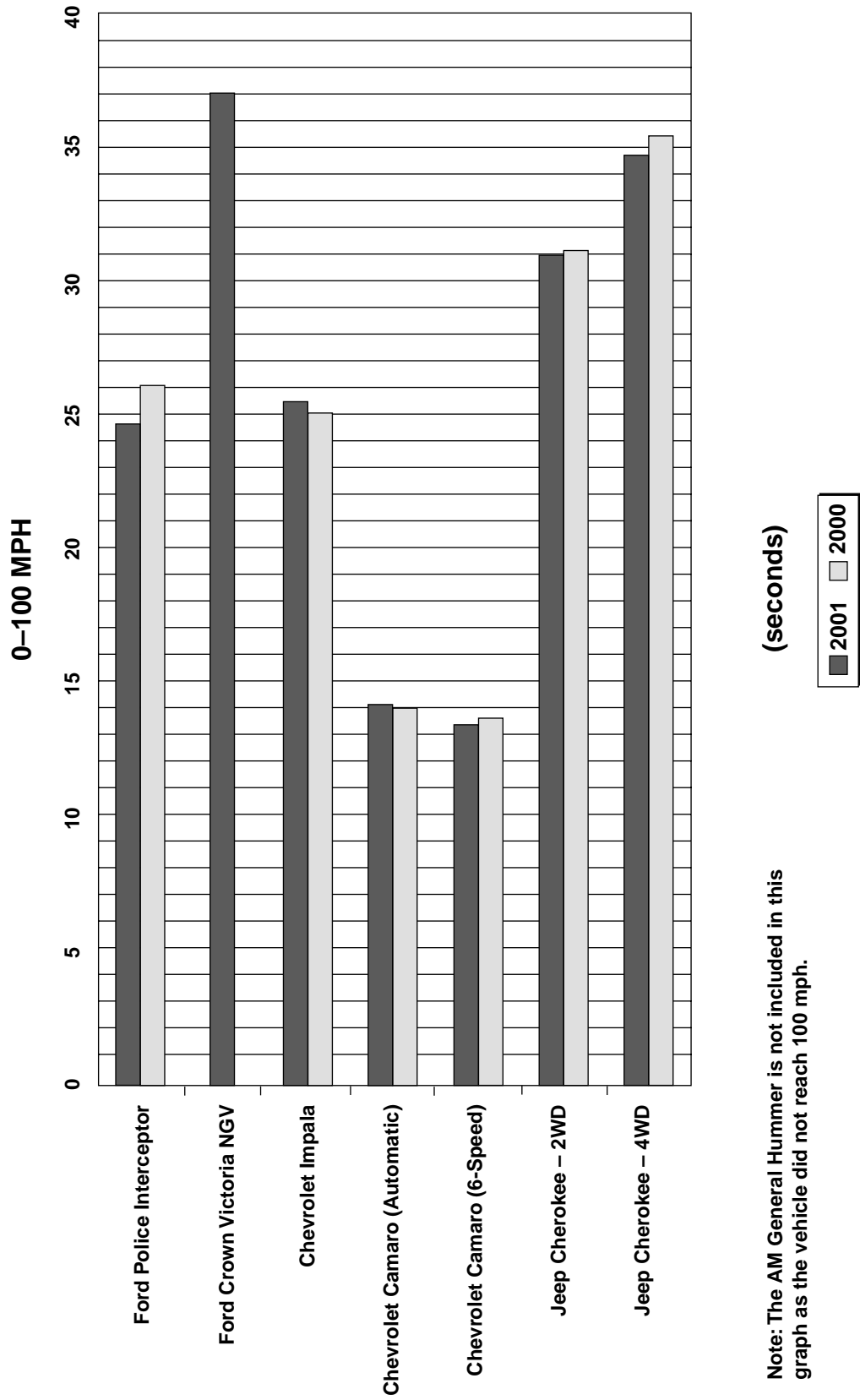


2000-01 ACCELERATION COMPARISON



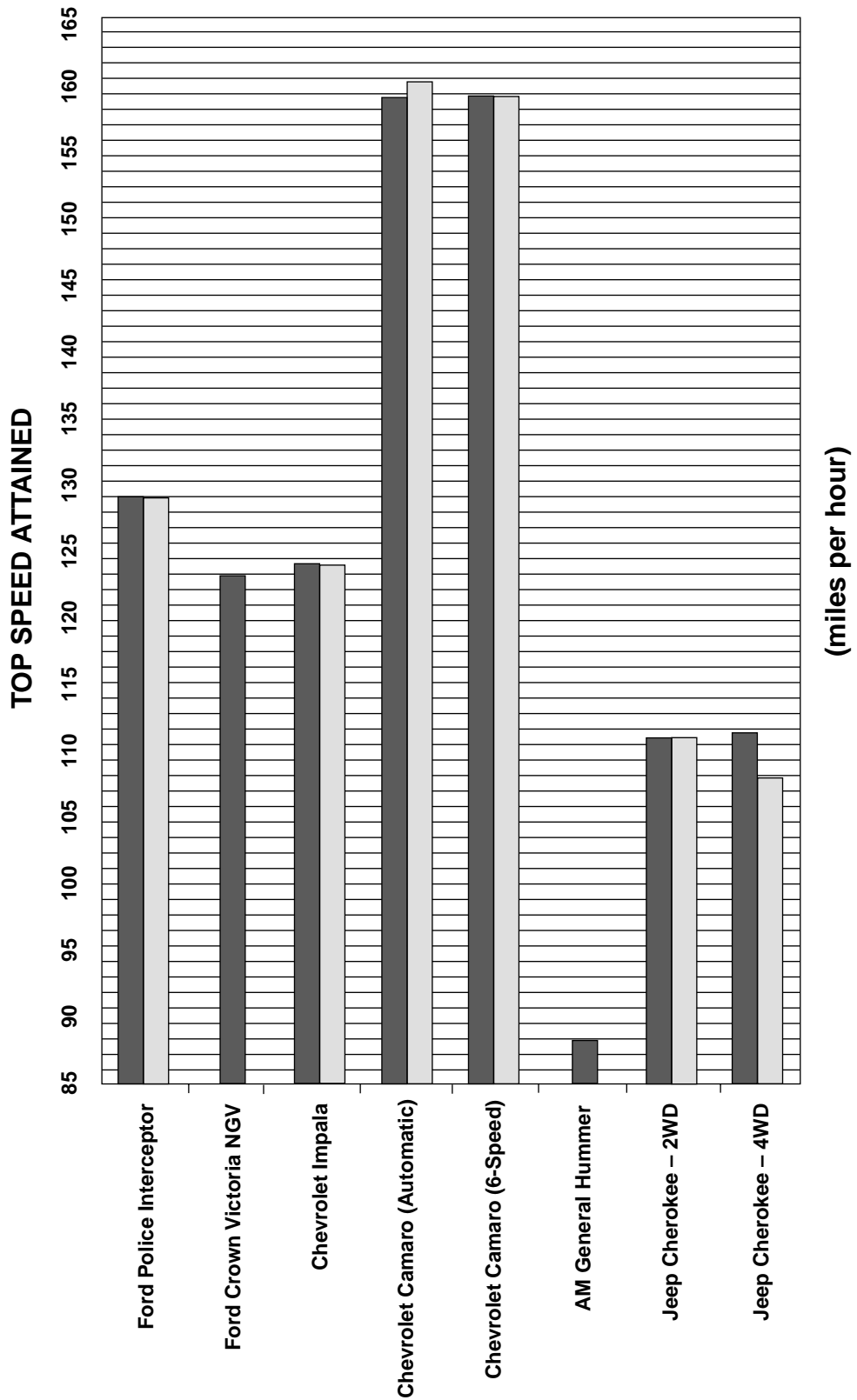
Note: The Hummer time was 49.27 seconds.

2000-01 ACCELERATION COMPARISON

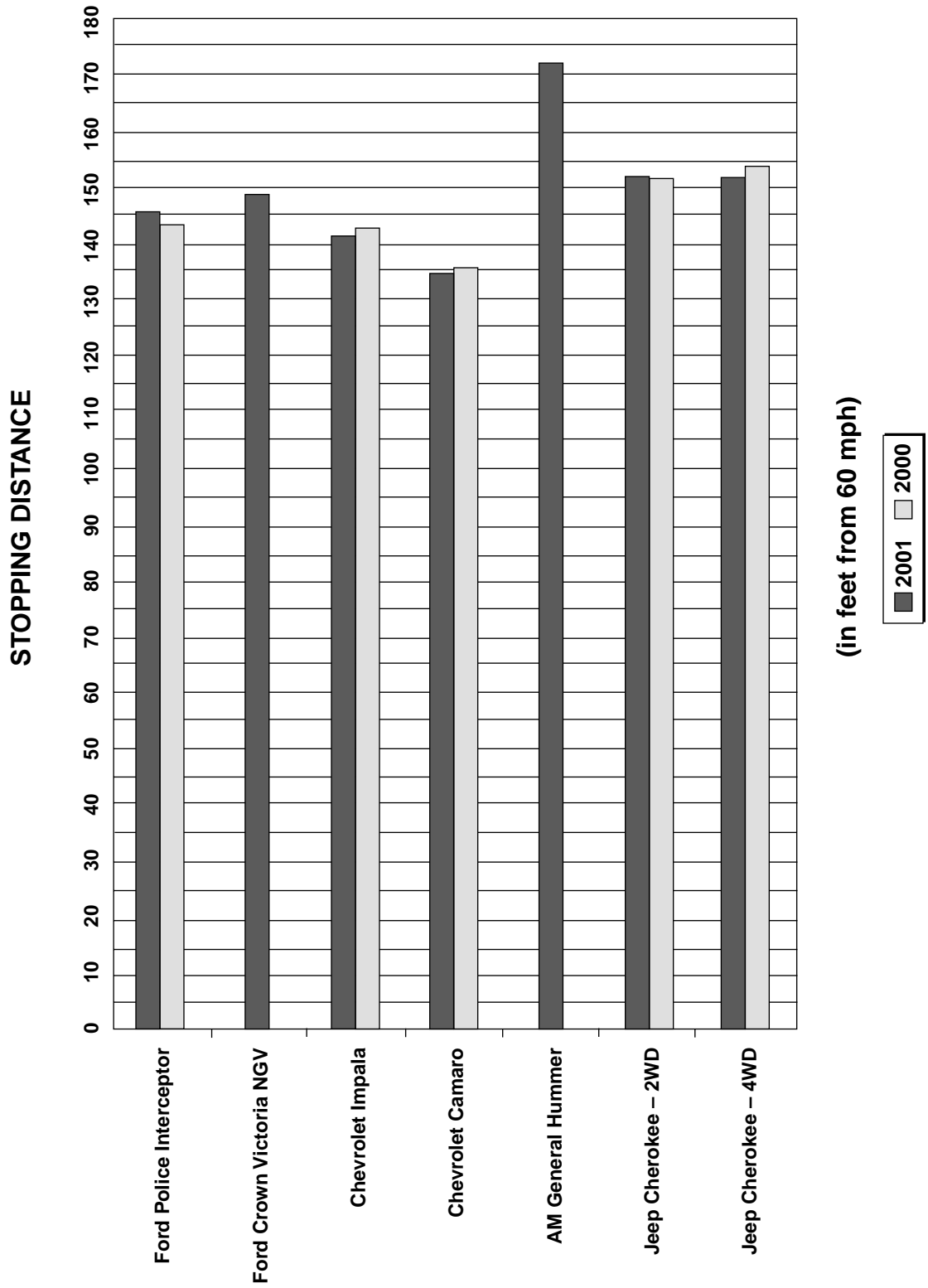


Note: The AM General Hummer is not included in this graph as the vehicle did not reach 100 mph.

2000-01 TOP SPEED COMPARISON



2000-01 BRAKE TESTING COMPARISON



Appendix II: Special-Service Vehicles

The issue of what makes a police vehicle a police package is an issue that will be with us for some time. Many law enforcement agencies still require a police vehicle to be capable of participating in a pursuit and look to the manufacturers to put their engineering talents toward that goal. However, some law enforcement agencies need a vehicle that has cargo capacity and other attributes, but does not require pursuit capabilities. For this, the manufacturers offer special-service vehicles.

The Michigan Department of State Police presents this information on special-service vehicles with the caveat that the reader is aware that these vehicles are not engineered for high-speed or pursuit driving. The vehicles were tested in all the categories except vehicle dynamics, which is high-speed handling and represents pursuit applications.

The special-service vehicles were tested in the following categories: Acceleration, Top Speed, Braking, Fuel Economy, and Ergonomics and Communications.

SPECIAL-SERVICE VEHICLES ARE NOT ENGINEERED FOR HIGH-SPEED AND PURSUIT APPLICATIONS.



Special-service vehicles on display.

(Not Designed for High-Speed or Pursuit Driving)

**2002 Ford Explorer
4.0L SPFI (4-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description

| | | | |
|--|--|---|-------------------|
| MAKE Ford 2002 Model Year | MODEL Explorer (4WD) | SALES CODE NO. U63 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 245 | LITERS | 4.0 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 210 @ 5250 RPM | ALTERNATOR | 130 amp. |
| TORQUE | 255 ft. lbs. @ 4000 RPM | BATTERY | 650 cca. |
| COMPRESSION RATIO | 9.7:1 | | |
| TRANSMISSION | MODEL 5R55W | TYPE 5-speed automatic overdrive | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.27 | | |
| STEERING | Power, Ford - Rack and Pinion | | |
| TURNING CIRCLE (CURB TO CURB) | 36.75 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P235/70R 16SL Firestone Wilderness AT 109S | | |
| SUSPENSION TYPE (FRONT) | Coil spring (SLA) | | |
| SUSPENSION TYPE (REAR) | Independent (IRS) | | |
| GROUND CLEARANCE, MINIMUM | 9.2 in. (Note) | LOCATION Transmission cross member | |
| | BRAKE SYSTEM 4-Wheel ABS | | |
| BRAKES, FRONT | TYPE Disc | SWEPT AREA | 234.6 sq. in. |
| BRAKES, REAR | TYPE Disc | SWEPT AREA | 170.8 sq. in. |
| FUEL CAPACITY | GALLONS 22.5 | LITERS | 85 |
| GENERAL MEASUREMENTS | WHEELBASE 113.8 in. | LENGTH | 189.5 in. |
| | TEST WEIGHT 4446 lbs. | HEIGHT | 69.2 in. |
| HEADROOM | FRONT 39.9 in. | REAR | 38.9 in.* |
| LEGROOM | FRONT 42.4 in. | REAR | 37.2 in.* |
| SHOULDER ROOM | FRONT 59.1 in. | REAR | 58.9 in. |
| HIP ROOM | FRONT 55.0 in. | REAR | 54.2 in. |
| | FRONT 81.8 cu. ft.** | REAR | 44.5 cu. ft.*** |
| INTERIOR VOLUME | COMB 88 cu. ft.**** | TRUNK | 13.9 cu. ft.***** |
| | EPA MILEAGE EST. (MPG) | CITY 15 | HIGHWAY 19 |
| | | COMBINED N/A | |

* Second row. ** With rear seats folded. *** With second row seats upright. **** W/O third row seat, 81.3 cu. ft. w/third row seat.

***** With third row seats upright.

Note: Ground clearance measured with P255/70R16 tires.

(Not Designed for High-Speed or Pursuit Driving)

**Chevrolet Tahoe
4.8L SPFI (2-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description

| | | | |
|--|--|-------------------------------|-------------------|
| MAKE Chevrolet | MODEL Tahoe (2WD) | SALES CODE NO. 5W4 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 292 | LITERS | 4.8 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Single 5.5 |
| HORSEPOWER (SAE NET) | 275 @ 5200 RPM | ALTERNATOR | 130 amp. |
| TORQUE | 290 ft. lbs. @ 4000 RPM | BATTERY | 600 cca. |
| COMPRESSION RATIO | 9.5:1 | | |
| TRANSMISSION | MODEL 4L60E | TYPE 4-speed automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.42 or 3.73 optional | | |
| STEERING | Power assisted recirculating ball | | |
| TURNING CIRCLE (CURB TO CURB) | 38.3 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P245/75 R16 All season, 2000 lb. @ 35 PSI, 112 MPI | | |
| SUSPENSION TYPE (FRONT) | Independent, single lower arm with torsion bar | | |
| SUSPENSION TYPE (REAR) | Multi (5) link with coil springs | | |
| GROUND CLEARANCE, MINIMUM | 9.7/10.7 in. | LOCATION Front/rear | |
| | BRAKE SYSTEM Power 4-wheel antilock disc | | |
| BRAKES, FRONT | TYPE Disc | SWEPT AREA | 213 sq. in. |
| BRAKES, REAR | TYPE Disc | SWEPT AREA | 133 sq. in. |
| FUEL CAPACITY | GALLONS 26 | LITERS | 98.4 |
| GENERAL MEASUREMENTS | WHEELBASE 116 in. | LENGTH | 198.9 in. |
| | TEST WEIGHT 5017 lbs. | HEIGHT | 74.2 in. |
| HEADROOM | FRONT 40.7 in. | REAR | 39.4 in. |
| LEGROOM | FRONT 41.3 in. | REAR | 38.6 in. |
| SHOULDER ROOM | FRONT 65.2 in. | REAR | 65.1 in. |
| HIP ROOM | FRONT 61.4 in. | REAR | 61.3 in. |
| | FRONT 94.3 cu. ft. | REAR | 57.3 cu. ft. |
| INTERIOR VOLUME | COMB 151.6 cu. ft. | TRUNK | 108.2 cu. ft. |
| | EPA MILEAGE EST. (MPG) | CITY 14 | HIGHWAY 16 |
| | | COMBINED 14 | |

(Not Designed for High-Speed or Pursuit Driving)

**Chevrolet Tahoe
4.8L SPFI (4-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description

| | | | |
|---|--|-------------------------------|--------------------|
| MAKE Chevrolet | MODEL Tahoe (4WD) | SALES CODE NO. 5W4 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 292 | LITERS | 4.8 |
| FUEL SYSTEM | Sequential Port Fuel Injection | EXHAUST | Single 5.5 |
| HORSEPOWER (SAE NET) | 275 @ 5200 RPM | ALTERNATOR | 130 amp. |
| TORQUE | 290 ft. lbs. @ 4000 RPM | BATTERY | 600 cca. |
| COMPRESSION RATIO | 9.5:1 | | |
| TRANSMISSION | MODEL 4L60E | TYPE 4-speed automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.73 | | |
| STEERING | Speed sensitive, power assisted recirculating ball | | |
| TURNING CIRCLE (CURB TO CURB) | 38.3 feet | | |
| TIRE SIZE, LOAD & SPEED RATING | P245/75R16 All season, 2000 lb. @ 35 PSI, 112 MPH | | |
| SUSPENSION TYPE (FRONT) | Independent, single lower arm with torsion bar | | |
| SUSPENSION TYPE (REAR) | Multi (5) link with coil springs | | |
| GROUND CLEARANCE, MINIMUM | 10.7/10.6 in. | LOCATION Front/rear | |
| | BRAKE SYSTEM Power 4-wheel antilock disc | | |
| BRAKES, FRONT | TYPE Disc | SWEPT AREA | 213 sq. in. |
| BRAKES, REAR | TYPE Disc | SWEPT AREA | 133 sq. in. |
| FUEL CAPACITY | GALLONS 26 | LITERS | 98.4 |
| GENERAL MEASUREMENTS | WHEELBASE 116 in. | LENGTH | 198.9 in. |
| | TEST WEIGHT 5300 lbs. | HEIGHT | 74.2 in. |
| HEADROOM | FRONT 40.7 in. | REAR | 39.4 in. |
| LEGROOM | FRONT 41.3 in. | REAR | 38.6 in. |
| SHOULDER ROOM | FRONT 65.2 in. | REAR | 65.1 in. |
| HIP ROOM | FRONT 61.4 in. | REAR | 61.3 in. |
| INTERIOR VOLUME | FRONT 94.3 cu. ft. | REAR | 57.3 cu. ft. |
| | COMB 151.6 cu. ft. | TRUNK | 108.2 cu. ft. |
| EPA MILEAGE EST. (MPG) | CITY 13 | HIGHWAY 13 | COMBINED 13 |
| | | | |

(Not Designed for High-Speed or Pursuit Driving)

**Ford Expedition
5.4L SMFI (4-Wheel Drive)**



2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description

| | | | |
|--|---|--|--------------------|
| MAKE Ford | MODEL Expedition (4WD) | SALES CODE NO. U15 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 330 | LITERS | 5.4 |
| FUEL SYSTEM | Sequential Multiport Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 260 @ 4500 RPM | ALTERNATOR | 130 amp. |
| TORQUE | 350 ft. lbs. @ 2500 RPM | BATTERY | 650 cca. |
| COMPRESSION RATIO | 9.0:1 | | |
| TRANSMISSION | MODEL 4R70W | TYPE 4-speed electronic automatic | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.31:1 | | |
| STEERING | Power, speed sensitive, variable assist | | |
| TURNING CIRCLE (CURB TO CURB) | 40.4 feet | | |
| TIRE SIZE, LOAD, & SPEED RATING | P275/60R 17 General Grabber AW 109S | | |
| SUSPENSION TYPE (FRONT) | SLA type (independent), torsion bar | | |
| SUSPENSION TYPE (REAR) | Coil spring | | |
| GROUND CLEARANCE, MINIMUM | 6.3 in. | LOCATION Rear axle | |
| BRAKE SYSTEM | Power, single caliper, antilock | | |
| BRAKES, FRONT | TYPE Vented disc | SWEPT AREA | 222.0 sq. in. |
| BRAKES, REAR | TYPE Solid disc | SWEPT AREA | 201.0 sq. in. |
| FUEL CAPACITY | GALLONS 26 | LITERS | 98.4 |
| GENERAL MEASUREMENTS | WHEELBASE 119.1 in. | LENGTH | 204.6 in. |
| | TEST WEIGHT 5264 lbs. | HEIGHT | 74.3 in. |
| HEADROOM | FRONT 39.8 in. | REAR | 39.8 in.* |
| LEGROOM | FRONT 40.9 in. | REAR | 38.9 in.* |
| SHOULDER ROOM | FRONT 63.9 in. | REAR | 64.4 in.* |
| HIP ROOM | FRONT 61.5 in. | REAR | 62.3 in.* |
| INTERIOR VOLUME | FRONT 62.5 cu. ft. | REAR | 55.8 cu. ft. |
| | COMB 131.2 cu.ft.** | TRUNK | 62.5 cu. ft. |
| EPA MILEAGE EST. (MPG) | CITY 12 | HIGHWAY 17 | COMBINED 14 |

* Second row.

** With rear seat folded and including space behind third row seat.

(Not Designed for High-Speed or Pursuit Driving)

**Ford Excursion
6.8L SMFI**



2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description

| | | | |
|---|-------------------------------------|---|-----------------|
| MAKE Ford | MODEL Excursion | SALES CODE NO. U40 | |
| ENGINE DISPLACEMENT | CUBIC INCHES 415 | LITERS | 6.8 V10 |
| FUEL SYSTEM | Sequential Multiport Fuel Injection | EXHAUST | Single |
| HORSEPOWER (SAE NET) | 310 @ 4250 RPM | ALTERNATOR | 130 amp. |
| TORQUE | 425 ft. lbs. @ 3250 RPM | BATTERY | 750 cca. |
| COMPRESSION RATIO | 9.0:1 | | |
| TRANSMISSION | MODEL 4R100 | TYPE 4-speed automatic w/overdrive | |
| | LOCKUP TORQUE CONVERTER? Yes | | |
| | OVERDRIVE? Yes | | |
| AXLE RATIO | 3.73 | | |
| STEERING | Power steering | | |
| TURNING CIRCLE (CURB TO CURB) | 47.1 feet | | |
| TIRE SIZE, LOAD & SPEED RATING | LT 265/75R X 16D BSW All seasons | | |
| SUSPENSION TYPE (FRONT) | Twin I-beam | | |
| SUSPENSION TYPE (REAR) | Leaf spring solid axle | | |
| GROUND CLEARANCE, MINIMUM | 8.11 in. | LOCATION @ Differential | |
| BRAKE SYSTEM | 4-wheel ABS | | |
| BRAKES, FRONT | TYPE Disc | SWEPT AREA | 264.48 sq. in. |
| BRAKES, REAR | TYPE Disc | SWEPT AREA | 244.81 sq. in. |
| FUEL CAPACITY | GALLONS 44 | LITERS | 167 |
| GENERAL MEASUREMENTS | WHEELBASE 137.1 in. | LENGTH | 226.7 in. |
| | TEST WEIGHT 7304 | HEIGHT | 77.2 in. |
| HEADROOM | FRONT 41.0 in. | REAR | 41.1 in.* |
| LEGROOM | FRONT 42.3 in. | REAR | 40.5 in.* |
| SHOULDER ROOM | FRONT 68.3 in. | REAR | 67.0 in.* |
| HIP ROOM | FRONT 67.5 in. | REAR | 66.9 in.* |
| INTERIOR VOLUME | FRONT 165.0 cu. ft. | REAR | 108.3 cu. ft.** |
| | COMB 321.9 cu. ft. | TRUNK | 48.6 cu. ft.*** |
| EPA MILEAGE EST. (MPG) | CITY **** | HIGHWAY **** | COMBINED |

*Second row. **Behind second row seat. ***Behind third row seat. ****Not required.

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description Summary

| | Ford 2002 Explorer (4WD) | Chevrolet Tahoe (2WD) | Chevrolet Tahoe (4WD) |
|---------------------------------|-------------------------------------|----------------------------------|----------------------------------|
| ENGINE DISPLACEMENT—CU. IN. | 245 | 292 | 292 |
| ENGINE DISPLACEMENT—LITERS | 4.0 | 4.8 | 4.8 |
| ENGINE FUEL SYSTEM | SPFI | SPFI | SPFI |
| HORSEPOWER (SAE NET) | 210 | 275 | 275 |
| TORQUE (FT. LBS.) | 255 | 290 | 290 |
| COMPRESSION RATIO | 9.7:1 | 9.5:1 | 9.5:1 |
| AXLE RATIO | 3.27 | 3.42 or 3.73 Optional | 3.73 |
| TURNING CIRCLE—FT. CURB TO CURB | 36.75 | 38.3 | 38.3 |
| TRANSMISSION | Automatic Overdrive | Automatic | Automatic |
| TRANSMISSION MODEL NUMBER | 5R55W | 4L60E | 4L60E |
| LOCKUP TORQUE CONVERTER | Yes | Yes | Yes |
| TRANSMISSION OVERDRIVE | Yes | Yes | Yes |
| TIRE SIZE | P235/70R | P245/75R | P245/75R |
| WHEEL RIM SIZE—INCHES | 16 | 16 | 16 |
| GROUND CLEARANCE—INCHES | 9.2 | 9.7/10.7 | 10.7/10.6 |
| BRAKE SYSTEM | 4-Wheel, ABS | Power, ABS | Power, ABS |
| BRAKES—FRONT TYPE | Disc | Disc | Disc |
| BRAKES—REAR TYPE | Disc | Disc | Disc |
| FUEL CAPACITY—GALLONS | 22.5 | 26.0 | 26.0 |
| FUEL CAPACITY—LITERS | 85.0 | 98.4 | 98.4 |
| OVERALL LENGTH—INCHES | 189.5 | 198.9 | 198.9 |
| OVERALL HEIGHT—INCHES | 69.2 | 74.2 | 74.2 |
| TEST WEIGHT—LBS. | 4446 | 5017 | 5300 |
| WHEELBASE—INCHES | 113.8 | 116.0 | 116.0 |
| HEADROOM FRONT—INCHES | 39.9 | 40.7 | 40.7 |
| HEADROOM REAR—INCHES | 38.9* | 39.4 | 39.4 |
| LEGROOM FRONT—INCHES | 42.4 | 41.3 | 41.3 |
| LEGROOM REAR—INCHES | 37.2* | 38.6 | 38.6 |
| SHOULDER ROOM FRONT—INCHES | 59.1 | 65.2 | 65.2 |
| SHOULDER ROOM REAR—INCHES | 58.9 | 65.1 | 65.1 |
| HIP ROOM FRONT—INCHES | 55.0 | 61.4 | 61.4 |
| HIP ROOM REAR—INCHES | 54.2 | 61.3 | 61.3 |
| INTERIOR VOLUME FRONT—CU. FT. | 81.8** | 94.3 | 94.3 |
| INTERIOR VOLUME REAR—CU. FT. | 44.5*** | 57.3 | 57.3 |
| INTERIOR VOLUME COMB.—CU. FT. | 88.0**** | 151.6 | 151.6 |
| TRUNK VOLUME—CU. FT. | 13.9***** | 108.2 | 108.2 |
| EPA MILEAGE—CITY—MPG | 15 | 14 | 13 |
| EPA MILEAGE—HIGHWAY—MPG | 19 | 16 | 13 |
| EPA MILEAGE—COMBINED—MPG | N/A | 14 | 13 |

*Second row. **With rear seats folded. ***With second row seats upright. ****W/O third row seat, 81.3 cu. ft. with third row seat.

*****With third row seats upright.

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Test Vehicle Description Summary

| | Ford Expedition (4WD) | Ford Excursion |
|---------------------------------|--------------------------|-------------------|
| ENGINE DISPLACEMENT—CU. IN. | 330 | 415 |
| ENGINE DISPLACEMENT—LITERS | 5.4 | 6.8 |
| ENGINE FUEL SYSTEM | SMFI | SMFI |
| HORSEPOWER (SAE NET) | 260 | 310 |
| TORQUE (FT. LBS.) | 350 | 425 |
| COMPRESSION RATIO | 9.0:1 | 9.0:1 |
| AXLE RATIO | 3.31:1 | 3.73 |
| TURNING CIRCLE—FT. CURB TO CURB | 40.4 | 47.1 |
| TRANSMISSION | Elec. Automatic | Elec. Automatic |
| TRANSMISSION MODEL NUMBER | 4R70W | 4R100 |
| LOCKUP TORQUE CONVERTER | Yes | Yes |
| TRANSMISSION OVERDRIVE | Yes | Yes |
| TIRE SIZE | P275/60R | LT265/75R |
| WHEEL RIM SIZE—INCHES | 17 | 16 |
| GROUND CLEARANCE—INCHES | 6.3 | 8.11 |
| BRAKE SYSTEM | Power, ABS | 4-Wheel ABS |
| BRAKES—FRONT TYPE | Vented Disc | Disc |
| BRAKES—REAR TYPE | Solid Disc | Disc |
| FUEL CAPACITY—GALLONS | 26.0 | 44.0 |
| FUEL CAPACITY—LITERS | 98.4 | 167.0 |
| OVERALL LENGTH—INCHES | 204.6 | 226.7 |
| OVERALL HEIGHT—INCHES | 74.3 | 77.2 |
| TEST WEIGHT—LBS. | 5264 | 7304 |
| WHEELBASE—INCHES | 119.1 | 137.1 |
| HEADROOM FRONT—INCHES | 39.8 | 41.0 |
| HEADROOM REAR—INCHES | 39.8* | 41.1* |
| LEGROOM FRONT—INCHES | 40.9 | 42.3 |
| LEGROOM REAR—INCHES | 38.9* | 40.5* |
| SHOULDER ROOM FRONT—INCHES | 63.9 | 68.3 |
| SHOULDER ROOM REAR—INCHES | 64.4* | 67.0* |
| HIP ROOM FRONT—INCHES | 61.5 | 67.5 |
| HIP ROOM REAR—INCHES | 62.3* | 66.9* |
| INTERIOR VOLUME FRONT—CU. FT. | 62.5 | 165.0 |
| INTERIOR VOLUME REAR—CU. FT. | 55.8 | 108.3*** |
| INTERIOR VOLUME COMB.—CU. FT. | 131.2** | 321.9 |
| TRUNK VOLUME—CU. FT. | 62.5 | 48.6**** |
| EPA MILEAGE—CITY—MPG | 12 | ***** |
| EPA MILEAGE—HIGHWAY—MPG | 17 | ***** |
| EPA MILEAGE—COMBINED—MPG | 14 | ***** |

* Second row. ** With rear seat folded and including space behind third row seat. *** Behind second row seat.

**** Behind third row seat. ***** Not required.

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Summary of Acceleration, Top Speed, and Brake Testing

| ACCELERATION* | Ford 2002 Explorer (4WD) 4.0L SPFI | Chevrolet Tahoe (2WD) 4.8L SPFI | Chevrolet Tahoe (4WD) 4.8L SPFI |
|--|--|---------------------------------------|---------------------------------------|
| 0–20 mph (sec.) | 2.05 | 2.10 | 2.28 |
| 0–30 mph (sec.) | 3.42 | 3.54 | 3.73 |
| 0–40 mph (sec.) | 5.13 | 4.96 | 5.18 |
| 0–50 mph (sec.) | 7.36 | 7.18 | 7.45 |
| 0–60 mph (sec.) | 10.48 | 9.77 | 10.12 |
| 0–70 mph (sec.) | 14.07 | 12.48 | 12.93 |
| 0–80 mph (sec.) | 18.60 | 17.17 | 18.20 |
| 0–90 mph (sec.) | 25.36 | 23.86 | 25.44 |
| 0–100 mph (sec.) | 36.22 | — | — |
| TOP SPEED (mph) | 106** | 98** | 98** |
| DISTANCE TO REACH | | | |
| 110 mph (miles) | — | — | — |
| 120 mph (miles) | — | — | — |
| QUARTER MILE | | | |
| Time (sec.) | 17.78 | 17.40 | 17.64 |
| Speed (miles) | 78.53 | 80.25 | 79.28 |
| ABS | | | |
| BRAKING – PHASE I | | | |
| Average Deceleration Rate (ft/s ²) | 27.03 | 25.98 | 25.30 |
| BRAKING – PHASE II | | | |
| Average Deceleration Rate (ft/s ²) | 27.04 | 25.25 | 23.39 |
| BRAKING – FINAL SCORE | | | |
| Deceleration Rate (ft/s²) | 27.03 | 25.61 | 24.34 |
| Projected Stopping Distance from 60 mph (feet) | 143.2 | 151.2 | 159.1 |

* Four-run average.

** Vehicle equipped with an electronic speed limiter.

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Summary of Acceleration, Top Speed, and Brake Testing

| ACCELERATION* | Ford Expedition (4WD) 5.4L SMFI | Ford Excursion 6.8L SMFI |
|--|--|-------------------------------------|
| 0–20 mph (sec.) | 1.89 | 2.24 |
| 0–30 mph (sec.) | 3.46 | 3.87 |
| 0–40 mph (sec.) | 5.12 | 5.66 |
| 0–50 mph (sec.) | 7.16 | 8.27 |
| 0–60 mph (sec.) | 10.04 | 11.27 |
| 0–70 mph (sec.) | 13.19 | 14.62 |
| 0–80 mph (sec.) | 17.24 | 19.59 |
| 0–90 mph (sec.) | 24.63 | 26.34 |
| 0–100 mph (sec.) | 34.32 | — |
| TOP SPEED (mph) | 106** | 94** |
| DISTANCE TO REACH | | |
| 110 mph (miles) | — | — |
| 120 mph (miles) | — | — |
| QUARTER MILE | | |
| Time (sec.) | 17.48 | 18.25 |
| Speed (miles) | 80.38 | 77.85 |
| | ABS | ABS |
| BRAKING – PHASE I | | |
| Average Deceleration Rate (ft/s ²) | 22.73 | 20.99 |
| BRAKING – PHASE II | | |
| Average Deceleration Rate (ft/s ²) | 24.97 | 22.03 |
| BRAKING – FINAL SCORE | | |
| Deceleration Rate (ft/s ²) | 23.85 | 21.51 |
| Projected Stopping Distance from 60 mph (feet) | 162.3 | 180.0 |

* Four-run average.

** Vehicle equipped with an electronic speed limiter.

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Brake Testing

TEST LOCATION: DaimlerChrysler Proving Grounds DATE: September 16, 2000
BEGINNING TIME: 9:41 a.m. TEMPERATURE: 49.2°F
MAKE and MODEL: 2002 Ford Explorer 4.0L (4WD) BRAKE SYSTEM: Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>59.9</u> | mph | <u>140.8</u> | feet | <u>27.41</u> | ft/s ² |
| Stop #2 | <u>59.9</u> | mph | <u>144.6</u> | feet | <u>26.69</u> | ft/s ² |
| Stop #3 | <u>60.3</u> | mph | <u>145.5</u> | feet | <u>26.88</u> | ft/s ² |
| Stop #4 | <u>60.5</u> | mph | <u>144.9</u> | feet | <u>27.17</u> | ft/s ² |
| Stop #5 | <u>61.3</u> | mph | <u>151.7</u> | feet | <u>26.64</u> | ft/s ² |
| Stop #6 | <u>61.3</u> | mph | <u>147.7</u> | feet | <u>27.36</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 27.03 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.2</u> | mph | <u>145.4</u> | feet | <u>26.81</u> | ft/s ² |
| Stop #2 | <u>60.6</u> | mph | <u>145.2</u> | feet | <u>27.20</u> | ft/s ² |
| Stop #3 | <u>60.5</u> | mph | <u>146.4</u> | feet | <u>26.89</u> | ft/s ² |
| Stop #4 | <u>59.6</u> | mph | <u>141.8</u> | feet | <u>26.94</u> | ft/s ² |
| Stop #5 | <u>60.8</u> | mph | <u>146.0</u> | feet | <u>27.23</u> | ft/s ² |
| Stop #6 | <u>60.8</u> | mph | <u>146.4</u> | feet | <u>27.16</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 27.04 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 26.64 ft/s²

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Brake Testing

TEST LOCATION: DaimlerChrysler Proving Grounds DATE: September 16, 2000
BEGINNING TIME: 8:59 a.m. TEMPERATURE: 46.8°F
MAKE and MODEL: Chevrolet Tahoe 4.8L (2WD) BRAKE SYSTEM: Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> |
|---------|-----------------|-------------------|--------------------------------|--------------------------|
| Stop #1 | <u>60.2</u> mph | <u>152.3</u> feet | <u>25.59</u> ft/s ² | |
| Stop #2 | <u>61.1</u> mph | <u>149.5</u> feet | <u>26.86</u> ft/s ² | |
| Stop #3 | <u>60.2</u> mph | <u>143.8</u> feet | <u>27.11</u> ft/s ² | |
| Stop #4 | <u>60.1</u> mph | <u>148.0</u> feet | <u>26.25</u> ft/s ² | |
| Stop #5 | <u>61.2</u> mph | <u>153.2</u> feet | <u>26.30</u> ft/s ² | |
| Stop #6 | <u>60.7</u> mph | <u>166.8</u> feet | <u>23.76</u> ft/s ² | |

AVERAGE DECELERATION RATE (Phase I): 25.98 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | <u>DECELERATION RATE</u> |
|---------|-----------------|-------------------|--------------------------------|
| Stop #1 | <u>61.4</u> mph | <u>158.8</u> feet | <u>25.54</u> ft/s ² |
| Stop #2 | <u>59.9</u> mph | <u>155.3</u> feet | <u>24.85</u> ft/s ² |
| Stop #3 | <u>62.2</u> mph | <u>162.1</u> feet | <u>25.67</u> ft/s ² |
| Stop #4 | <u>60.1</u> mph | <u>151.1</u> feet | <u>25.71</u> ft/s ² |
| Stop #5 | <u>60.6</u> mph | <u>161.3</u> feet | <u>24.49</u> ft/s ² |
| Stop #6 | <u>60.6</u> mph | <u>156.6</u> feet | <u>25.22</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 25.25 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 25.61 ft/s²

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Brake Testing

TEST LOCATION: DaimlerChrysler Proving Grounds DATE: September 16, 2000
BEGINNING TIME: 10:05 a.m. TEMPERATURE: 51.6°F
MAKE and MODEL: Chevrolet Tahoe 4.8L (4WD) BRAKE SYSTEM: Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.6</u> | mph | <u>150.5</u> | feet | <u>26.25</u> | ft/s ² |
| Stop #2 | <u>59.7</u> | mph | <u>148.9</u> | feet | <u>25.75</u> | ft/s ² |
| Stop #3 | <u>59.6</u> | mph | <u>148.8</u> | feet | <u>25.68</u> | ft/s ² |
| Stop #4 | <u>60.7</u> | mph | <u>155.5</u> | feet | <u>25.49</u> | ft/s ² |
| Stop #5 | <u>60.0</u> | mph | <u>161.1</u> | feet | <u>24.04</u> | ft/s ² |
| Stop #6 | <u>60.1</u> | mph | <u>157.8</u> | feet | <u>24.62</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 25.30 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> | |
|---------|-------------|-----|--------------|------|--------------------------|-------------------|
| Stop #1 | <u>60.4</u> | mph | <u>155.0</u> | feet | <u>25.32</u> | ft/s ² |
| Stop #2 | <u>60.3</u> | mph | <u>165.9</u> | feet | <u>23.57</u> | ft/s ² |
| Stop #3 | <u>60.0</u> | mph | <u>173.6</u> | feet | <u>22.31</u> | ft/s ² |
| Stop #4 | <u>60.2</u> | mph | <u>175.9</u> | feet | <u>22.16</u> | ft/s ² |
| Stop #5 | <u>60.5</u> | mph | <u>166.8</u> | feet | <u>23.60</u> | ft/s ² |
| Stop #6 | <u>60.3</u> | mph | <u>167.4</u> | feet | <u>23.36</u> | ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 23.39 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 24.34 ft/s²

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Brake Testing

TEST LOCATION: DaimlerChrysler Proving Grounds DATE: September 16, 2000
BEGINNING TIME: 10:38 a.m. TEMPERATURE: 52.6°F
MAKE and MODEL: Ford Expedition 5.4L (4WD) BRAKE SYSTEM: Antilock

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | <u>DECELERATION RATE</u> |
|---------|-----------------|-------------------|--------------------------------|--------------------------|
| Stop #1 | <u>60.3</u> mph | <u>163.7</u> feet | <u>23.89</u> ft/s ² | |
| Stop #2 | <u>61.2</u> mph | <u>174.8</u> feet | <u>23.05</u> ft/s ² | |
| Stop #3 | <u>60.9</u> mph | <u>167.6</u> feet | <u>23.80</u> ft/s ² | |
| Stop #4 | <u>60.4</u> mph | <u>179.7</u> feet | <u>21.84</u> ft/s ² | |
| Stop #5 | <u>60.5</u> mph | <u>174.4</u> feet | <u>22.57</u> ft/s ² | |
| Stop #6 | <u>60.4</u> mph | <u>184.6</u> feet | <u>21.26</u> ft/s ² | |

AVERAGE DECELERATION RATE (Phase I): 22.73 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | <u>DECELERATION RATE</u> |
|---------|-----------------|-------------------|--------------------------------|
| Stop #1 | <u>60.5</u> mph | <u>161.8</u> feet | <u>24.33</u> ft/s ² |
| Stop #2 | <u>60.9</u> mph | <u>157.4</u> feet | <u>25.34</u> ft/s ² |
| Stop #3 | <u>59.5</u> mph | <u>149.2</u> feet | <u>25.52</u> ft/s ² |
| Stop #4 | <u>60.6</u> mph | <u>156.7</u> feet | <u>25.21</u> ft/s ² |
| Stop #5 | <u>60.8</u> mph | <u>162.3</u> feet | <u>24.50</u> ft/s ² |
| Stop #6 | <u>60.2</u> mph | <u>156.3</u> feet | <u>24.94</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 24.97 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| Evidence of severe fading? | <u>Yes/No</u> |
| Vehicle stopped in straight line? | <u>No</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 23.85 ft/s²

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Brake Testing

| | | | |
|------------------------|--|----------------------|---------------------------|
| TEST LOCATION: | <u>DaimlerChrysler Proving Grounds</u> | DATE: | <u>September 16, 2000</u> |
| BEGINNING TIME: | <u>11:06 a.m.</u> | TEMPERATURE: | <u>53.3°F</u> |
| MAKE and MODEL: | <u>Ford Excursion 6.8L</u> | BRAKE SYSTEM: | <u>Antilock</u> |

Phase I

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> |
|---------|-------------|-----|--------------|------|--------------------------------|
| Stop #1 | <u>60.8</u> | mph | <u>198.7</u> | feet | <u>20.01</u> ft/s ² |
| Stop #2 | <u>60.6</u> | mph | <u>193.7</u> | feet | <u>20.39</u> ft/s ² |
| Stop #3 | <u>61.4</u> | mph | <u>180.3</u> | feet | <u>22.49</u> ft/s ² |
| Stop #4 | <u>60.4</u> | mph | <u>194.0</u> | feet | <u>20.23</u> ft/s ² |
| Stop #5 | <u>61.6</u> | mph | <u>189.9</u> | feet | <u>21.49</u> ft/s ² |
| Stop #6 | <u>61.2</u> | mph | <u>189.0</u> | feet | <u>21.32</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase I): 20.99 ft/s²

HEAT SOAK: (4 minutes)

Phase II

BRAKE HEAT-UP: (Two 90–0 mph decelerations @ 22 ft/s²)

TEST: (Six 60–0 mph impending skid (ABS) maximum deceleration rate stops)

| | | | | | <u>DECELERATION RATE</u> |
|---------|-------------|-----|--------------|------|--------------------------------|
| Stop #1 | <u>60.8</u> | mph | <u>177.4</u> | feet | <u>22.41</u> ft/s ² |
| Stop #2 | <u>60.7</u> | mph | <u>174.2</u> | feet | <u>22.75</u> ft/s ² |
| Stop #3 | <u>60.4</u> | mph | <u>181.6</u> | feet | <u>21.61</u> ft/s ² |
| Stop #4 | <u>60.4</u> | mph | <u>186.4</u> | feet | <u>21.05</u> ft/s ² |
| Stop #5 | <u>60.1</u> | mph | <u>172.9</u> | feet | <u>22.47</u> ft/s ² |
| Stop #6 | <u>60.9</u> | mph | <u>182.2</u> | feet | <u>21.89</u> ft/s ² |

AVERAGE DECELERATION RATE (Phase II): 22.03 ft/s²

Phase III

| | |
|--------------------------------------|---------------|
| | <u>Yes/No</u> |
| Evidence of severe fading? | <u>No</u> |
| Vehicle stopped in straight line? | <u>Yes</u> |
| Vehicle stopped within correct lane? | <u>Yes</u> |

OVERALL AVERAGE DECELERATION RATE: 21.51 ft/s²

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Ergonomics and Communications

| ERGONOMICS | Ford 2002 Explorer | Chevrolet Tahoe |
|--|-----------------------|--------------------|
| FRONT SEAT | | |
| Padding | 6.90 | 8.20 |
| Depth of Bucket Seat | 7.30 | 7.40 |
| Adjustability—Front to Rear | 6.50 | 7.50 |
| Upholstery | 7.00 | 7.80 |
| Bucket Seat Design | 6.90 | 7.70 |
| Headroom | 8.40 | 9.10 |
| Seatbelts | 6.10 | 7.40 |
| Ease of Entry and Exit | 6.70 | 7.90 |
| Overall Comfort Rating | 7.20 | 8.10 |
| REAR SEAT | | |
| Legroom—Front Seat Back | 6.50 | 7.60 |
| Ease of Entry and Exit | 6.10 | 7.50 |
| INSTRUMENTATION | | |
| Clarity | 6.70 | 8.40 |
| Placement | 7.10 | 8.20 |
| VEHICLE CONTROLS | | |
| Pedals, Size and Position | 6.90 | 8.30 |
| Power Window Switch | 8.00 | 0.00 |
| Inside Door Lock Switch | 6.40 | 7.60 |
| Automatic Door Lock Switch | 8.00 | 8.10 |
| Outside Mirror Controls | 6.60 | 0.90 |
| Steering Wheel, Size, Tilt Release, and Surface | 6.40 | 8.30 |
| Heat/AC Vent Placement and Adjustability | 7.22 | 8.22 |
| VISIBILITY | | |
| Front (Windshield) | 7.10 | 7.90 |
| Rear (Back Window) | 7.10 | 4.90 |
| Left Rear Quarter | 7.00 | 6.60 |
| Right Rear Quarter | 7.10 | 6.50 |
| Outside Rearview Mirrors | 6.90 | 7.80 |
| COMMUNICATIONS | | |
| Dashboard Accessibility | 6.07 | 7.53 |
| Trunk Accessibility | 6.53 | 7.53 |
| Engine Compartment | 6.00 | 6.33 |
| TOTAL SCORES | 192.72 | 199.31 |

2001 Model Year Patrol Vehicle Testing

(Not Designed for High-Speed or Pursuit Driving)

Ergonomics and Communications

| ERGONOMICS | Ford Expedition | Ford Excursion |
|---|-----------------|----------------|
| FRONT SEAT | | |
| Padding | 7.60 | 8.30 |
| Depth of Bucket Seat | 7.20 | 8.10 |
| Adjustability—Front to Rear | 7.50 | 8.40 |
| Upholstery | 7.50 | 9.00 |
| Bucket Seat Design | 7.10 | 8.30 |
| Headroom | 8.90 | 9.10 |
| Seatbelts | 7.56 | 8.00 |
| Ease of Entry and Exit | 5.90 | 7.40 |
| Overall Comfort Rating | 7.40 | 8.50 |
| REAR SEAT | | |
| Legroom—Front Seat Back | 8.90 | 8.90 |
| Ease of Entry and Exit | 6.40 | 7.10 |
| INSTRUMENTATION | | |
| Clarity | 7.70 | 7.90 |
| Placement | 7.60 | 8.10 |
| VEHICLE CONTROLS | | |
| Pedals, Size and Position | 8.60 | 8.50 |
| Power Window Switch | 8.30 | 8.30 |
| Inside Door Lock Switch | 7.60 | 7.50 |
| Automatic Door Lock Switch | 8.30 | 8.20 |
| Outside Mirror Controls | 7.80 | 8.00 |
| Steering Wheel, Size, Tilt Release, and Surface | 8.00 | 8.20 |
| Heat/AC Vent Placement and Adjustability | 7.78 | 8.44 |
| VISIBILITY | | |
| Front (Windshield) | 8.20 | 8.60 |
| Rear (Back Window) | 7.50 | 7.30 |
| Left Rear Quarter | 7.80 | 7.70 |
| Right Rear Quarter | 7.80 | 7.60 |
| Outside Rearview Mirrors | 7.90 | 9.10 |
| COMMUNICATIONS | | |
| Dashboard Accessibility | 7.07 | 6.73 |
| Trunk Accessibility | 7.40 | 7.00 |
| Engine Compartment | 5.89 | 6.44 |
| TOTAL SCORES | 213.19 | 224.71 |

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