
**STATE OF MICHIGAN
Department of State Police
and
Department of Management and Budget**

**2011 Model Year
Police Vehicle
Evaluation Program**

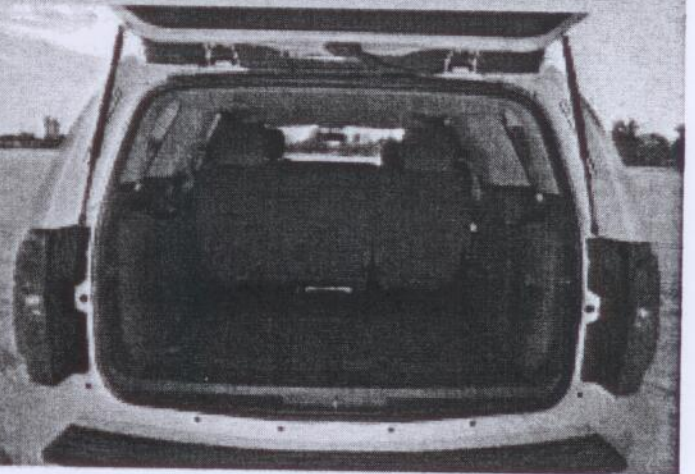
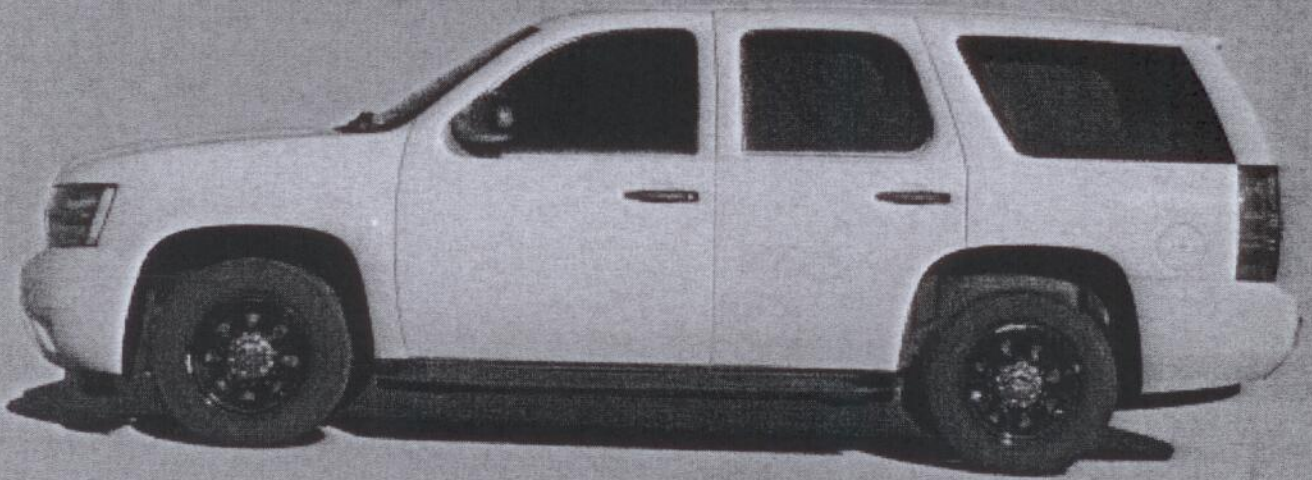
Published by:
Michigan State Police
Precision Driving Unit
November, 2010

Prepared by:
Ms. Sheila Cowles, Michigan State Police

Photographs by:
Mr. Ray Holt, Michigan State Police

TEST VEHICLE DESCRIPTIONS AND PHOTOGRAPHS

Chevrolet Tahoe PPV 2WD



VEHICLE TEST DESCRIPTION

MAKE Chevrolet	MODEL Tahoe PPV – 2WD	SALES CODE NO. CC10706	
ENGINE DISPLACEMENT	CUBIC INCHES 327	LITERS	5.3
FUEL SYSTEM	SPFI – E85 Ethanol Capable	EXHAUST	Single
HORSEPOWER (SAE NET)	320 @ 5200 RPM	ALTERNATOR	160
TORQUE	340 ft-lbs @ 4000 RPM	BATTERY	730 CCA
COMPRESSION RATIO	9.5:1		
TRANSMISSION	MODEL 6L80E	TYPE 6 – Speed Automatic Overdrive	
	LOCKUP TORQUE CONVERTER? Yes		
	OVERDRIVE? Yes		
AXLE RATIO	3.08		
STEERING	Power – Rack & Pinion		
TURNING CIRCLE (CURB TO CURB)	39.0 ft.		
TIRE SIZE, LOAD & SPEED RATING	Goodyear RS-A Police Radial P265/60R17, W Rated		
SUSPENSION TYPE (FRONT)	Independent, single coil over shock with stabilizer bar		
SUSPENSION TYPE (REAR)	Multi-link with coil springs		
GROUND CLEARANCE, MINIMUM	8.00 in.	LOCATION Rear axle	
BRAKE SYSTEM	Vacuum-boost, power, anti-lock		
BRAKES, FRONT	TYPE Disc	SWEPT AREA 256.6 sq. in.	
BRAKES, REAR	TYPE Disc	SWEPT AREA 248 sq. in.	
FUEL CAPACITY	GALLONS 26.0	LITERS	98.4
GENERAL MEASUREMENTS	WHEELBASE 116.0 in.	LENGTH	198.9 in.
	TEST WEIGHT 5311	HEIGHT	73.9
HEADROOM	FRONT 40.3 in.	REAR	39.2 in.
LEGGROOM	FRONT 41.3 in.	REAR	39.0 in.
SHOULDER ROOM	FRONT 65.3 in.	REAR	65.2 in.
HIPROOM	FRONT 64.4 in.	REAR	60.6 in.
INTERIOR VOLUME *MAX. CARGO IS W/REAR SEATS FOLDED DOWN	FRONT 62.9 cu. ft.	REAR	57.68 cu. ft.
	COMB 120.58 cu. ft.	*MAX. CARGO 108.9 cu. ft.	
EPA MILEAGE EST. (MPG) Label	CITY 15	HIGHWAY 21	COMBINED 17
EPA MILEAGE EST. (MPG) Unadjusted	CITY 18.3	HIGHWAY 29.4	COMBINED 22.1
EPA MILEAGE EST. (MPG) E85 Label	CITY 11	HIGHWAY 16	COMBINED 13
EPA MILEAGE EST. (MPG) E85 Unadjusted	CITY 13.4	HIGHWAY 22.2	COMBINED 16.3

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.

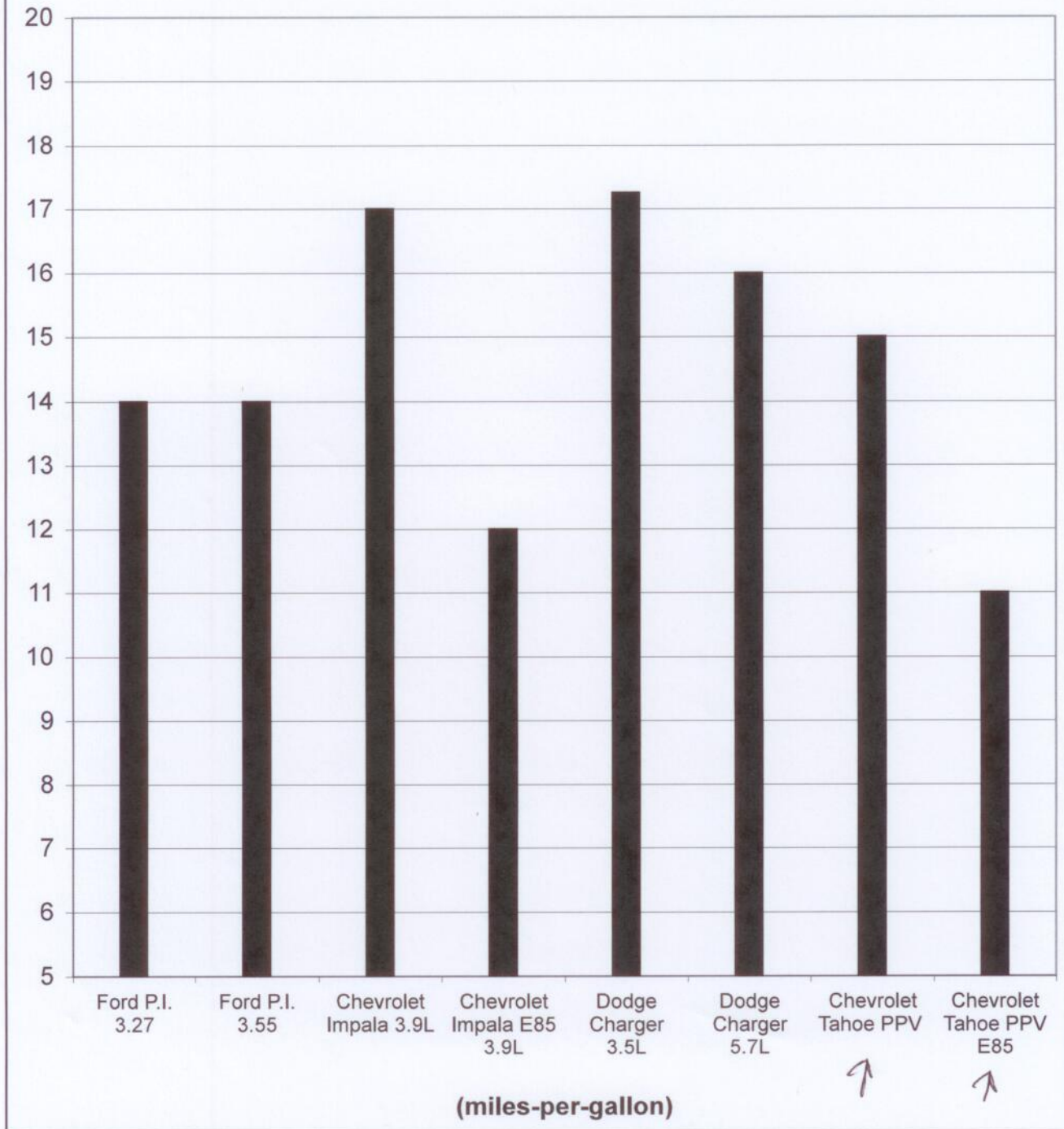
TEST METHODOLOGY

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.

Vehicles Make/Model/Engine	E.P.A. Miles Per Gallon					
	City		Highway		Combined	
	Label	Unadjusted	Label	Unadjusted	Label	Unadjusted
Ford Police Interceptor 3.27 4.6L SPFI	14	17.9	21	29.7	17	21.7
Ford Police Interceptor 3.55 4.6L SPFI	14	17.9	21	29.7	17	21.7
Chevrolet Impala 3.9L SPFI	17	21.2	24	33.8	20	25.5
Chevrolet Impala E85 3.9L SPFI	12	15.5	18	24.7	15	18.6
Dodge Charger 3.5L SPFI	17.25	21.2	25	35.1	19	25.8
Dodge Charger 5.7L SPFI	16	19.3	25	34.6	19	24.1
Chevrolet Tahoe PPV 5.3L SPFI	15	18.3	21	29.4	17	22.05
Chevrolet Tahoe E85 PPV 5.3L SPFI	11	13.4	16	22.2	13	16.31

2010 FUEL ECONOMY COMPARISON

"CITY" EPA ESTIMATES



PERFORMANCE COMPARISONS OF 2010 AND 2011 TEST VEHICLES

The following charts illustrate the scores achieved by each make and model of vehicle tested for model years 2010 and 2011. 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 2010 – 2011 performance comparison charts. 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 2010 and 2011 model year vehicles were conducted in the latter half of September. Temperatures on the test day in September of 2009 ranged between 39.8° F at the start of testing to a high of approximately 57.5° F during the afternoon. Temperatures during the testing this year varied, ranging between 61° F when testing started, to an afternoon high of 75° F. Such things as temperature, humidity, and barometric pressure affect the performance of internal combustion engines and brake components, and may cause minor differences from one year's evaluation to the next.

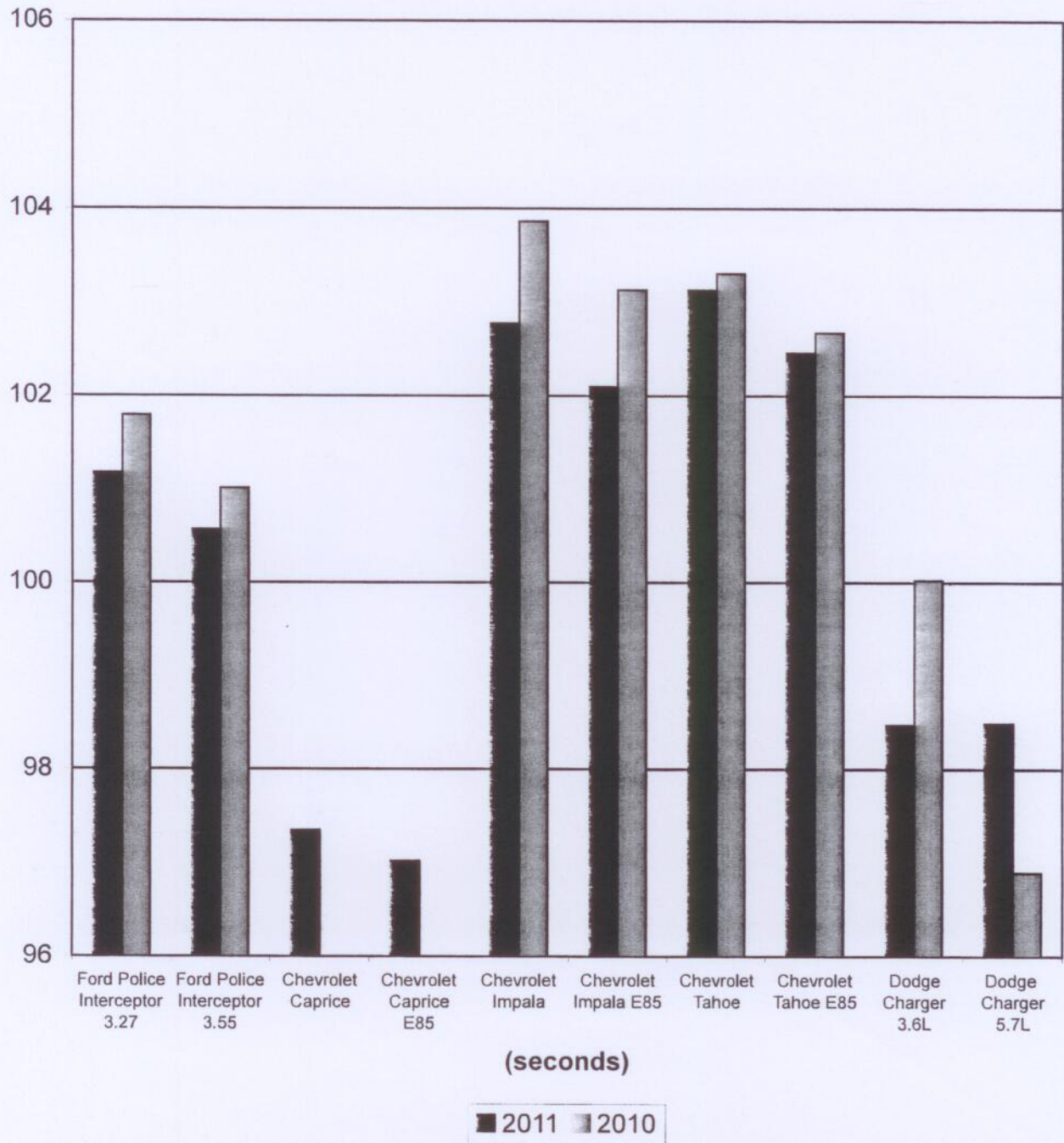
Another factor to be considered is the individual differences between two cars of the same make and model. The test cars that we evaluate are representative of their given make and model. Other cars of the same make and model will not, however, be exactly the same, particularly when it comes to performance. (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.

TABLE OF CONTENTS

<u>SECTIONS</u>	<u>PAGE</u>
Preface	1
Acknowledgements	3
Test Equipment	4
Police Package Vehicle Descriptions	
Police Package Vehicle Photographs and Descriptions	5
Police Package Vehicle Descriptions Summary	20
Competitive Evaluation	
Vehicle Dynamics Testing	
Test Objective and Methodology	22
Test Facility Diagram	23
Test Data	24
Comparison Chart.....	26
Acceleration, Top Speed and Brake Testing	
Acceleration and Top Speed Test Objectives and Methodology.....	27
Test Facility Diagram	28
Acceleration and Top Speed Data.....	29
Summary of Acceleration and Top Speed	34
Acceleration and Top Speed Test Data Comparison Charts	36
Brake Test Objectives and Methodology	38
Brake Test Data	39
Brake Test Data Comparison Chart	45
Ergonomics and Communications Evaluation	
Test Objective and Methodology	46
Test Data	47
Test Data Comparison Chart.....	48
Fuel Economy	
Test Objective and Methodology	49
Test Data	49
Test Data Comparison Chart.....	50
Scoring and Bid Adjustment Methodology	51
Performance Comparison of 2010-2011 Test Vehicles	53
Motorcycle Performance Data, Description, and Photographs	61
About the National Institute of Justice, the Law Enforcement and Corrections Standards and Testing Program, the Law Enforcement and Corrections Technology Center System, and the Office of Law Enforcement Standards	81

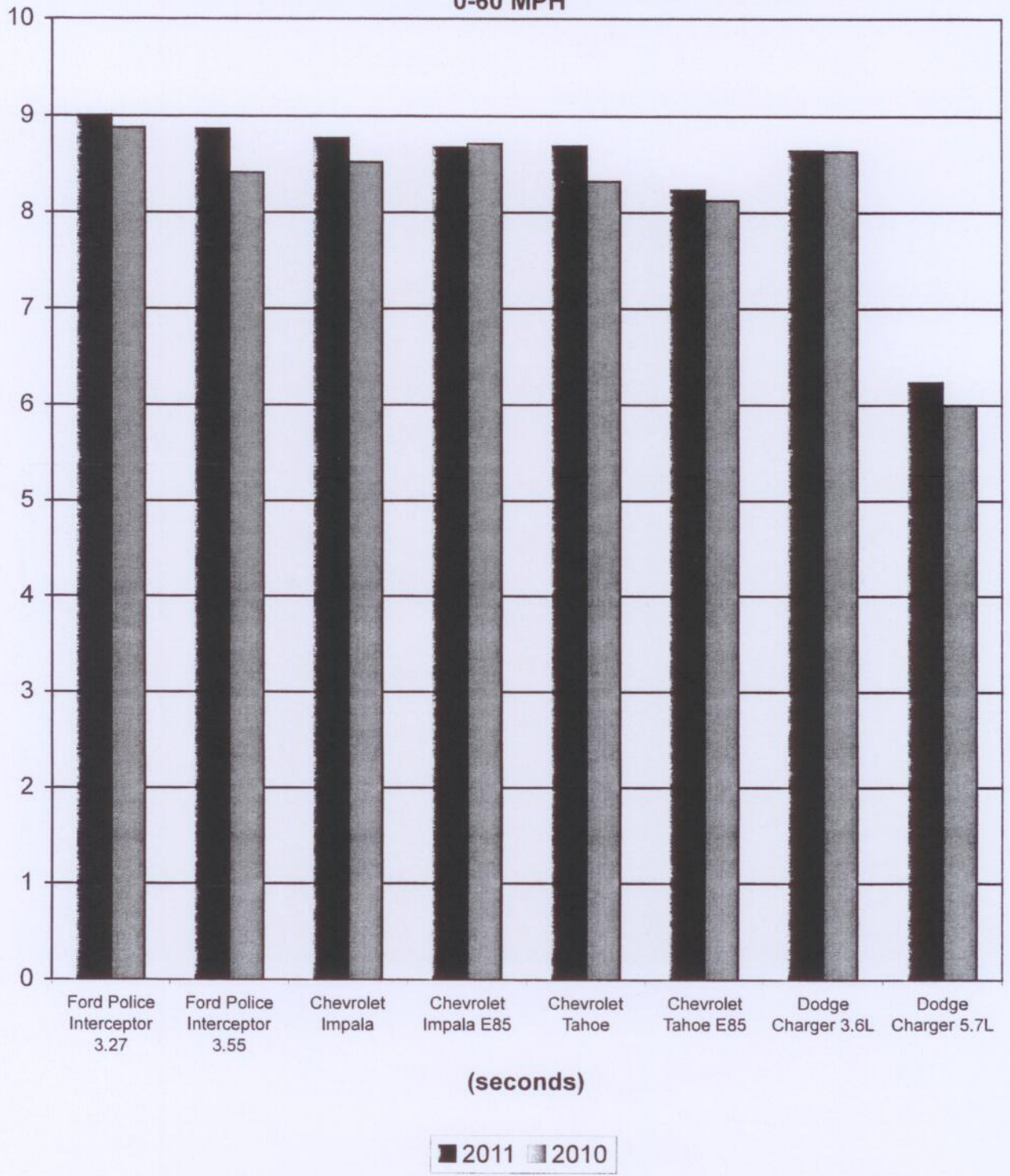
2010-11 Vehicle Dynamics Comparison

LAP TIMES



2010-11 ACCELERATION COMPARISON

0-60 MPH



CHEVROLET
CADILLAC
PONTIAC
BUICK
GMC
NISSAN

Michael Lummis

From: Jesse Hilton [jhilton@nilesauto.com]
Sent: Tuesday, November 09, 2010 8:30 AM
To: Michael Lummis
Subject: FW: Vehicle Bid

JESSE JAMES HILTON

850-544-2151
3500 N. ROOSEVELT BLVD.
KEY WEST, FL 33040
305-294-1003 • 305-296-3781 (FAX)
www.nilesauto.com
jhilton@nilesauto.com

From: Jesse Hilton [mailto:jhilton@nilesauto.com]
Sent: Monday, November 08, 2010 7:29 PM
To: 'mlummis@keywestcity.com'
Subject: Vehicle Bid

This is Jesse Hilton from Niles Sales and Service and we would like to be included in the bidding process on the 2 Chevrolet Tahoe's for the K9 units for the city of Key West. We would greatly appreciate the chance to help our local law enforcement.

Jesse J. Hilton
Sales Manager
Niles Sales and Service