

# MT's CAR PLAN TO SAVE TAXPAYERS \$320 MILLION!

The average police car is little more than a taxicab with a big, wasteful engine. *Motor Trend* has a plan to end that, and save American taxpayers a bundle in the process.

First of a series by John Christy



## WE'VE BEEN CONNED BY THE MOVIES.

Since the beginning of films, the scene in the cops-and-robbers flick has been the same. The camera focuses on two cops cruising in the prowler car. Then we hear the impersonal female voice over the police radio: "Attention all units in the vicinity of Eighth and Vermont. One-L-Niner is in pursuit of a two-eleven suspect headed south on Vermont in a blue 1968 Dodge, license number Adam-Zebra-Charlie-one-one-three. All units handle Code Three. Repeat Code Three."

Then the movie screen explodes. Black-and-white cop cars scream around corners at howling, impossible speeds, maneuvering with all the abandon of amusement-park bumper cars. They fly around corners, up over curbs, barely missing other cars; right-angle turns at 70 miles an hour, tires screaming, sirens wailing.

"Wow!" you say to yourself, choking on a mouthful of popcorn. "Those cop cars must be some kind of machinery!"

Don't believe it. It's not true.

Did you ever stop to look at one of your local police cars? If not, you ought to. That car and others like it represent a very large chunk of everybody's tax dollar. It is also the most important individual piece of equipment used by the people who stand between you-and-yours and the social misfits of this world.

A months-long examination of police cars by *Motor Trend* reveals that this expensive, important piece of public equipment has all too often been the most illogically, haphazardly and even ignorantly chosen automobile purchase ever made. If you bought a new car in the past few years you probably did more shopping around and made a more careful and logical choice from among a greater number of options than was done by those responsible for the purchase of that police car.

It would be logical and pleasant to think that law enforcement vehicle criteria are established through detailed studies of needs and use that take into consideration such factors as terrain covered, the emergency and/or community services to be provided,

response required, officer comfort, overall cost including not only initial price but the maintenance and operating costs along with any other unique local factors. From these criteria a set of standards and specifications would be developed by a knowledgeable, responsible police official or team of policemen. With these in hand, the offerings and capabilities of the various manufacturers would be shopped to find suitable example cars which fill the developed bill of particulars. These could then be tested to see which one (or ones) would be best physically suited to the job at hand—that is, the tool that would best aid the policemen to protect and serve that individual community.

Unfortunately it just isn't done like that except in very rare instances.

When the decision of a community is made to buy new police cars, a host of factors usually comes into the act. Overlaying the real requirements are such forces as the influence of pressure groups, the prejudices of elected officials and police associations, other law enforcement agencies, individual preferences of the chief or high level police administrators, automotive mythology ("It takes a heavy car to stay on the road."), egos of individuals and even, in all too many cases, influence exerted by elected part-time officials who may also be in the automobile business.

The net result is that, in its better form, the average police car is little more than a taxicab with a big, woolly, often wasteful engine. At worst it is a low-line "stripper" four-door sedan of the type a small company might buy for its local sales force. Somewhere in the middle of those extremes is a fairly ordinary dealer-prepped car that represents some non-police functionary's idea of a compromise between economy and performance.

In most cases the cars are full-size (read it *large*) machines that are all too often too fat and clumsy to perform their function safely in an emergency, cars that no knowledgeable enthusiast would allow himself to be strapped into short of being handcuffed.

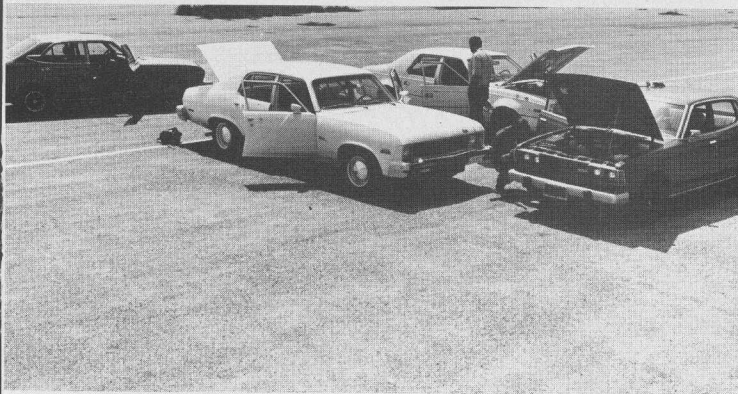
More than 70 percent of America's police cars, by actual survey, are of that overweight persuasion. More than 20 percent are big intermediates

ranging in capability from fairly good handling, explosive performers to poor handling sluggards that could be considered downright dangerous, both to the officers who must drive them and to the public at large. Don't, for instance, take on a '74 police Plymouth Satellite. It might have a 318 or 360 CID engine and then again it might be like the 440 that we tested that would rap off a string of mid-14-second quarter miles at 95 mph, with handling to match. That's an exception that proves a point we are going to make a bit later on.

It is common to point an accusatory finger at the various manufacturers, saying that they can't or won't deliver the goods in the form of a safe, rational, reasonably economical police car. The real fact of the matter is that they haven't been asked seriously to do so. In fact, they haven't been able to get an average of more than about three similar sets of specifications or even similar descriptions out of the 5000-odd law enforcement agencies with whom they do business! The fact of the matter is that nobody—engineer, auto sales executive or police officer—has yet defined a police vehicle.

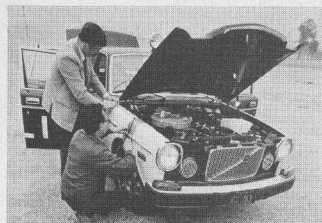
To this mix, let's add two more factors. It is almost universal practice to select and procure police and other public vehicles by the low bid method. Now this is an excellent method of assuring that no politically powerful firm is going to rip off chunks of the public purse—at least not without a fair amount of criminally actionable collusion—but it has its drawbacks. If by a process of pre-bid testing the choice of the type of car desired was narrowed down to one make and the low-bid contest then made among dealers of that make, it could work properly. However, the standard procedure is to offer the bidding to manufacturers. Thus, at best, it becomes a contest for the cheapest acceptable make and at worst, the cheapest car period. The second factor is that of all the law enforcement agencies in the country, only three to our knowledge, conduct anything like a comprehensive test to determine acceptability prior to letting out bids. These are the California Highway Patrol, the Los Angeles Police Department and the Los Angeles County Sheriff's Department. The CHP is a





Heat in the newer emissions-controlled cars is a destroyer. Radiator, engine oil, transmission oil, under-hood temperatures were also checked during the test sessions.

Deputy George Skalsky and author set up the Volvo 164 with tach generator on right front wheel to record speed, acceleration. System eliminates need for fifth wheel.



justly famous department known for its efficiency and inflexible courtesy. The LAPD certainly needs no introduction thanks to the electronic media and former-Sergeant, now fulltime novelist Joe Wambaugh. The Los Angeles Sheriff's Department carries a somewhat lower profile though it is the largest such county law enforcement agency in the world with more than 3000 of Los Angeles County's 4000 square miles to cover and 6000 deputies to do it with.

The Sheriff's Department is a thinking man's agency, very big on advanced techniques and higher education for its people. Over the past few years there has been a growing dissatisfaction over the whole police car situation, particularly as it applied to LASD. As a result, the Automotive Unit was given a thorough reorganization, renamed the Automotive Management Unit with emphasis on the "management" part rather than being merely custodial in operation. The first task was to reduce what was known as the "down rate," or the number of cars out of action, at any given time. This approached the horrendous figure of 25 percent, or more than 250 cars on the sick list all the time! It was reduced in a matter of months to 10 percent with a target of 5 percent as an eventual goal.

Out of this came two questions that had an immediate bearing on the problem. The first was whether or not the cars or types of cars being used were the best for the job, or rather variety of

jobs, faced by the Sheriff in L.A. County which is more varied in terrain than many states and even some countries. The county territory runs from raw desert to forested mountains, from densely urban through wealthy and middle-class suburban to bucolic, rural. In other words, was part of the problem due to using the wrong cars in the wrong place?

The second question was whether the testing done by the department was adequate to predict the behavior of the cars under consideration. While better than any other agency's testing (with the exception of LAPD with whom part of the testing was done), it just wasn't up to the present state of the art, even on an enthusiast magazine level let alone being truly predictive.

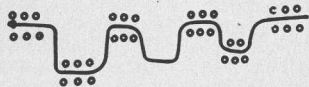
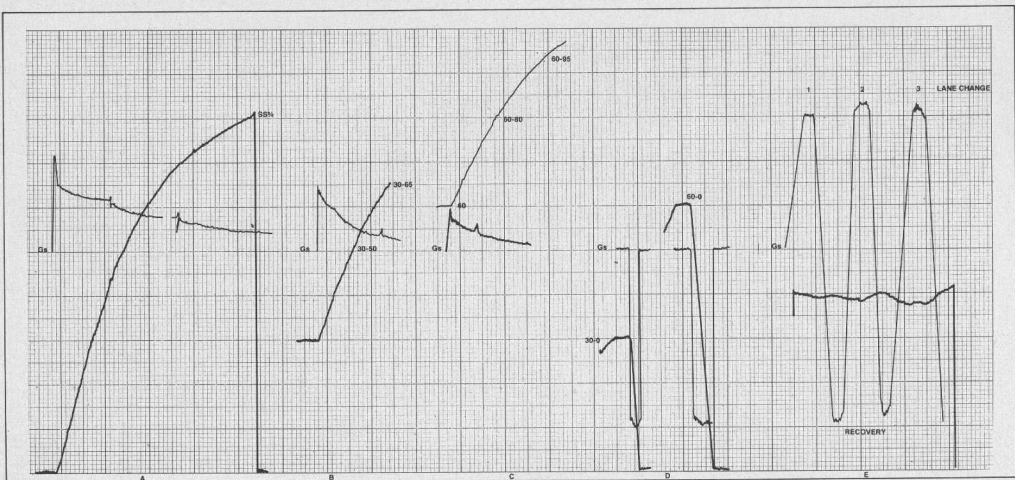
Through a bit of coincidence and a chain of events that need not concern us here, *Motor Trend* was invited to act in a consultant role to the Los Angeles Sheriff's Department. The invitation fitted right into *Motor Trend's* direction of public service as well as our move to improve our own test procedures. The result was a six-phase test program that combined some of *MT's* procedures, particularly those regarding performance and mileage, with some of those used by the sheriff, and three new ones were added. Each of these phases was set up to be scored on a 100 percentile basis so that each phase or factor would carry a score of its own and all could be averaged to give a total score for the

car itself and its performance in terms of speed, handling, braking, and recovery from a maneuver.

The phases are: a preliminary high speed handling evaluation (always done by the same two driver training instructors for consistency) to determine general suitability and to weed out potentially dangerous handling. The second phase is based on *MT's* performance test procedures to measure acceleration from a standstill and at urban and highway traffic speeds, braking from 30 and 60 mph, measured in time and g-force, and handling, also measured in terms of speed and lateral g-force both in dynamic or transient and steady-state conditions. The third phase is new, though based in part on *MT's Car of the Year* scoring process. It consists of an exhaustive five-page evaluation of the human factors and space utilization of the particular car. This is done by five to a dozen deputies independently with the individual scores weighted and averaged to avoid any personal prejudices in the matter of makes or types of cars. It gives a prediction of whether or not an officer can live with that car for eight hours without going bananas, and, more important, without making equipment-related mistakes that could endanger his life in a stress situation. An example is the car in which the brake release and the hood release were so close together that half the time the hood was popped when one aimed to release the brakes in a hurry. Er-



For the opening round of the program eight compact sized cars were tested, four for possible patrol duty and four for general purpose non-patrol uses. Two, the Chevy Nova 350 and the Volvo 164 were built specifically for patrol duty and proved outstanding. Two others, Pontiac Ventura and Mazda RX-4 were better-than-acceptable. Hornet six, Valiant six, Datsun 610 and Toyota Mark II six proved good for civil use.

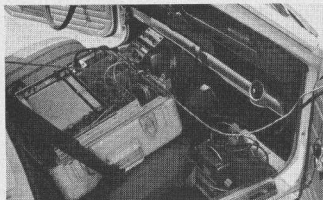


One of the more strenuous tests used is the 1, 2, 3, lane-change and recovery. The target speed is a steady 40 mph. Successive lane changes are two car lengths apart.

gonomics is the name of this particular exercise.

During the investigation and alleviation of the down-time problem, it was discovered that the heat built up by the new emissions-controlled engines was turning into a car-killer. Engine oil and transmission fluid temperatures were rising right into the oil breakdown range with the almost inevitable result that engines and transmissions were breaking or burning out at inordinately low mileage figures, as low as 5000 miles in some cases. For this reason a multiple heat check was instituted covering water, oil, transmission fluid and under hood temperatures to see if additional cooling in these areas was required. For that matter, additional oil and transmission coolers are not a bad idea for any car that is run hard in summer weather.

The fifth phase is a thorough repairability evaluation, done in a similar manner to the ergonomics evaluation by a number of county mechanics experienced in police vehicle repair. This one seeks to predict the time in which a car can be serviced or repaired both at the station level and in the garage for major problems. A car that can't be easily serviced (possibly given a new set of plugs and maybe a new oil filter) during the period between shifts is a car that's wasting somebody's time, isn't responding to a call, or, if the



minor repair is by-passed, a car that is inevitably headed for the garage on a major breakdown.

The final phase of the procedure is MT's well-known 73-mile urban-suburban fuel economy loop handled with a slight difference. The prospective police cars are driven over the loop with air conditioners on, lights lit and radios playing to get as near as possible to actual service conditions. This gives a nearly exact prediction of how much fuel a "solid" or unmarked car is going to use over its lifetime in service, and since a marked patrol car will get about 50 to 60 percent of that mileage, a fairly accurate estimate of its fuel use can be made as well.

Economy brings us to the next part of the program. As the great energy crunch reared its head, this program went full throttle from handle-in-order to a Code Three situation. One of the questions the test program sought to answer was whether or not a compact-sized car would make a viable police car, more specifically a patrol car, and if so, what sort of compact? To let the cat out of the bag before we bring you the details in next month's issue, the answers are "affirmative" and "surprising," respectively.

According to a report done for the Law Enforcement Assistance Administration of the U.S. Department of Justice released in February, "...the lead

Performance in acceleration, speed and handling of all eight were recorded for scoring on MT's Hewlett-Packard strip chart based electronic test equipment.

Some of the tests recorded on strip chart are (A) standing 1/4 mile: 30 to 50 and 65 (B), 60 to 80 and 95 mph (C); braking in time and g-force from 30 and 60 mph (D) and the 1, 2, 3 lane-change & recovery (E). Heavy line is speed, light line is g-force.

time for design, test, and evaluation of a police version compact-size car would take from two to three years before it was offered on the market." At roughly the same time, a copy of this report was sent to the LASD Automotive Unit, there were two such cars sitting in the *Motor Trend* parking area and several others were on their way from other manufacturers. One month later the decision was made to order a mixed batch of 37 of them for full field evaluation in actual service. At least two surpassed the test scores of anything currently in the Sheriff's service by a significant amount and the projected figures of the savings to the taxpayer are sheer dynamite.

Report back next month for the full figures and see what they can mean to your community and the public purse. We'll show you how a \$4000 or \$5000 compact can actually cost the taxpayers less than an intermediate or full size car with an initial cost of \$3500 and how, on a nationwide basis, the savings in gasoline alone could amount to a whopping \$320,000,000! Suffice it to say for the moment that the manufacturers can come through now. As a matter of fact they have already, and the Los Angeles County Sheriff's Department is a year's worth of jumps ahead of the federal government's recommendations in the matters of economy and procurement procedures.