

***This is a condensed version of the report -***



DEPARTMENT OF  
CALIFORNIA HIGHWAY PATROL

A REPORT TO THE LEGISLATURE ON THE FINDINGS OF THE

**SPECIALLY MARKED PATROL VEHICLE STUDY**

SENATE BILL 1873

OPERATIONAL PLANNING SECTION

This publication may be purchased for \$5.70 plus California sales tax.

LDA

AUGUST 1988

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## BACKGROUND

### TRUCK ACCIDENTS

The issue of truck accidents on California highways is a significant concern to the California Highway Patrol (CHP), the Legislature, governmental and traffic safety agencies, and the motoring public. Truck accidents in California have increased 43 percent over the five year period 1982 through 1986. Truck-at-fault (TAF) accidents during this period increased from 45.6 percent of all truck accidents occurring statewide to nearly 51 percent. In 1986, there were 38,163 truck accidents, of which 19,443 were TAF, i.e., the truck driver or equipment caused the accident. Fatal and injury accidents involving trucks have increased 40.2 and 36.2 percent respectively for the period 1982 through 1986. Approximately nine out of ten TAF accidents during this period were caused by driver error. The three leading accident-causing driver errors were unsafe speed, turning, and lane changes.

For many years truck drivers have been held in high esteem as professionals; however, public regard for the trucking industry has slipped as congested highways and smaller profit margins have combined to set the stage for unsafe driving practices. Despite enhanced CHP enforcement strategies and education efforts, truck accidents continue to grow at an alarming rate.

### LEGISLATION

The CHP implemented the Specially Marked Patrol Vehicle (SMPV) Pilot Program on January 12, 1987 and it ran through December 31, 1987. This program was instituted in compliance with Senate Bill 1873, which was sponsored by the California Trucking Association. Senate Bill 1873 required the CHP to institute a pilot program using patrol vehicles, not readily identifiable as CHP enforcement vehicles, to primarily enforce heavy truck rules of the road. In enacting this law, the Legislature acknowledged that a continued disregard for the safe operation of heavy commercial vehicles by some drivers existed. The Legislature recognized that the CHP had limited ability to combat the unsafe operation of commercial vehicles by drivers who employed various methods of communication to evade apprehension.

### PROGRAM OBJECTIVE

The objective of the pilot program was to increase compliance with rules of the road relating to heavy truck operations. The perceived risk of apprehension was expected to contribute to the enhanced compliance. The goal of the program was to realize a reduction in the number of TAF accidents.





## PERSONNEL/TRAINING

The pilot program was conducted without adding personnel positions to the CHP. Officers participating in the program were required to complete eight hours of classroom specialized commercial enforcement training and six hours of practical field training before operating SMPVs. Initially, 139 persons were trained. Forty-nine additional persons were trained during the program.

## SPECIALLY MARKED PATROL VEHICLES

The pilot program used 15 SMPVs which were converted CHP Mustang, LTD, Diplomat, and Celebrity model patrol cars. The SMPVs were modified so that they would not be readily identifiable as CHP enforcement vehicles, but would not jeopardize officer and public safety. All SMPVs met the identification and color requirements specified by California law for law enforcement vehicles engaged in traffic law enforcement. Modification consisted generally of non-CHP colors and low-profile vehicle equipment, i.e., emergency lights, antennas, etc.

## SMPV DEPLOYMENT AND OPERATIONS

Involved CHP Area commands attempted to deploy their SMPV(s) on test sites at the minimum rate of ten work shifts (80 hours) per week. There were, however, occasions when the minimum deployment rate could not be met due to a number of factors, i.e., SMPV mechanical failures or downtime for routine maintenance, and limited available personnel (Senate Bill 1873 did not provide funding for program personnel).

The SMPVs were normally operated on all test sites on A Watch (5:45 a.m. to 2:15 p.m.) and B Watch (1:45 p.m. to 10:15 p.m.), Monday through Friday. A total of 688,902 miles were traveled by the fleet of SMPVs.

## ENFORCEMENT AND PATROL GUIDELINES

Senate Bill 1873 specified that the primary purpose of SMPV officers was to enforce highway safety laws pertaining to heavy trucks. The legislation specified the target vehicles, which were generally heavy three-axle trucks, truck combinations, and trucks transporting hazardous materials.

Target violations were those identified as being primary collision factors in TAF accidents. They were divided into two general categories: (1) moving violations, and (2) driver's hours of service violations.



## PUBLIC ATTITUDES

Overall, public acceptance of the use of SMPVs was refreshingly high for the duration of the program. All Area Commanders felt that the public was overwhelmingly in support of the program. Their perceptions were based on interaction with the general public, judges, attorneys, community leaders, local government representatives, and members of the media. Officers' responses on survey questionnaires indicated that, based on enforcement contacts, SMPV officers perceived that the public was in favor of SMPV enforcement against trucks.

## CONCLUSIONS

### FINDINGS

1. Reduction in TAF accident rates was achieved on SMPV test sites. The success experienced on test sites was significant when compared to the rate of decline on other groups of highways.
2. Officers operating SMPVs generated more truck citations per officer patrol hour and focused a much higher percentage of total enforcement activity toward truck drivers than did officers operating black and white patrol cars.
3. Specially Marked Patrol Vehicles proved to be just as suitable as black and white patrol cars for the variety of functions required of CHP officers.
4. Public and judicial acceptance of the pilot program was perceived by the CHP to be positive. Judicial concern for or against the use of SMPVs was nonexistent.

### RECOMMENDATION

The CHP should retain the option to use SMPVs on any highway segment within the State that meets specified criteria relating to truck accidents or noncompliance with highway safety laws.



The practical field training occurred at CHP highway platform scale and inspection facilities. Officers conducted enforcement contacts with truck drivers traveling through these facilities. Personnel applied the concepts learned during the classroom training and, when appropriate, took enforcement action, i.e., issued citations, placed vehicles out-of-service, etc. Enforcement actions were made in accordance with existing CHP enforcement policies.

### SPECIALLY MARKED PATROL VEHICLES

#### STANDARD CHP PATROL CAR MARKINGS

Since its formation in 1929, the CHP has utilized distinctly marked patrol vehicles. Currently, the CHP maintains a fleet of over 2,000 distinctly marked patrol cars. These cars display the uniform color configuration and markings of the CHP and are easily identifiable statewide as enforcement vehicles. They meet the color specifications established in the California Code of Regulations (CCR) for traffic law enforcement vehicles.

Section 1140 in Title 13 of the CCR applies to the color of motor vehicles used by officers on duty for the main purpose of enforcing vehicle code laws pertaining to accidents and rules of the road. This Section requires that such cars and trucks have one of the exterior finishes described below:

- Entirely white; or
- White, except that an area not less than and including the front door panels shall be black; or
- Black, except that an area not less than and including the front door panels shall be white; or
- Any other color that contrasts sharply with white, providing an area not less than and including the front door panels is white and the indicia or names of governmental entities operating the vehicles are displayed on the front door panels.

CHP patrol cars are painted with a black and white color scheme; the front doors and roof are white, while the body is black. Gold colored, 3 1/2 inch high reflectorized "Highway Patrol" decals are present on the rear. Also, a 15 inch wide star, with the words "Highway Patrol" arched above it, is mounted on each front door.

The maximum contrast of the CHP's present black and white scheme provides very high visibility, consistent with the Department's policy of high-profile, in-view patrol. Generally, it is the Department's belief that rapid recognition of enforcement units is important both to deter potential traffic violators and to identify officers when motorists are being stopped for a violation or require assistance.





The visibility of CHP vehicles can also be a disadvantage during enforcement operations. During daylight hours, drivers are easily able to identify the presence of a CHP vehicle, and may temporarily alter their driving behavior accordingly. In addition, CHP officers generally determine the speed of violators on maximum limit highways through line-of-sight "pacing," i.e., matching the speed of the violator's vehicle. The length of this pace may be up to several miles in rural areas. During the pace, violators have an additional opportunity to observe the distinctive CHP vehicle behind them. Habitual and/or extreme violators are especially vigilant, and closely monitor their rear-view mirrors.

#### STANDARD CHP PATROL CAR EQUIPMENT

In addition to the distinctive color configuration and markings, CHP patrol cars can be easily recognized by the law enforcement equipment mounted upon them. Such equipment includes the following:

- Emergency Lighting - patrol cars not equipped with overhead emergency lights (light bars) are equipped with two front 5 3/4 inch diameter emergency lamps: one red spotlight mounted on the left windshield post and one white mounted on the right post. Three rear-facing warning lamps are mounted on the rear seat shelf.
- Heavy Duty Pushbumpers - all patrol cars, except Mustangs, are equipped with pushbumpers which are 21 inches high and extend ten inches forward of the front bumper.
- Whip Antennas - each patrol car is equipped with at least one 68 inch high metal antenna which is mounted on a left rear quarter panel. A 19 inch high antenna is also mounted on the roof of each patrol car.
- Shotguns - shotguns are secured to dashboards in a vertical position with barrels extending almost to the roof.

#### DEVELOPMENT OF SMPVs

The pilot program used 15 SMPVs which were not readily identifiable as CHP patrol units. Two additional SMPVs were held in reserve: one in Sacramento, and the other in Torrance.





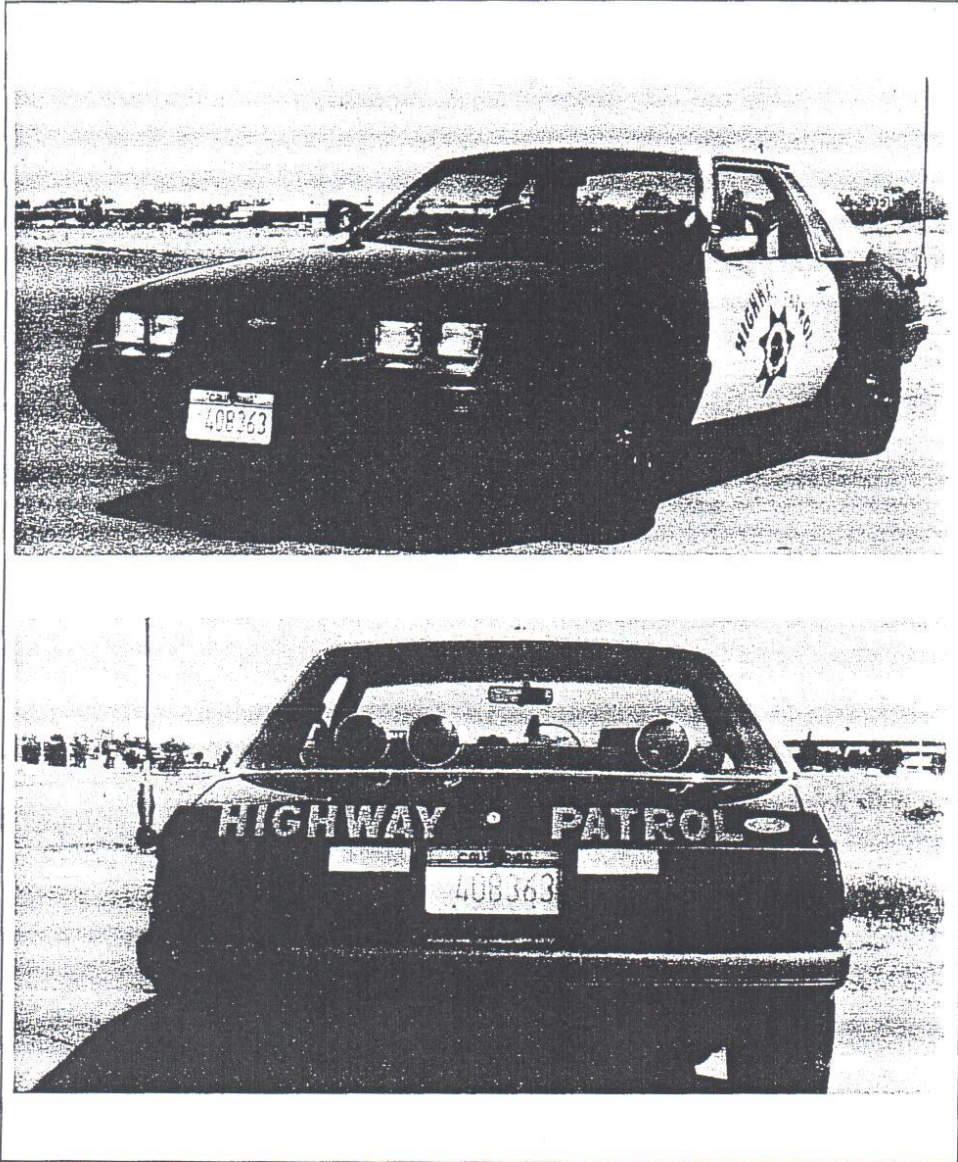


FIGURE 10. Traditionally marked and equipped CHP Mustang patrol car.





FIGURE 11. Specially marked CHP Mustang patrol car.





The original 17 SMPVs were converted CHP Mustang, LTD, Diplomat, and Celebrity model patrol cars. These cars were transferred into the pilot program from CHP Field commands throughout the State. On the average, each car had logged 44,000 patrol miles when brought to the CHP Motor Transport Section for conversion. Conversion of the 17 cars was accomplished in the three-week period of late December 1987 and early January 1988. The focus of the modification process was on the development of patrol cars that were not readily identifiable as CHP enforcement vehicles, but which did not jeopardize officer or public safety.

### SMPV MARKINGS

All SMPVs met the color requirements specified in the CCR. Although the SMPVs were not painted in the standard CHP configuration, they were "fully-marked patrol cars", not "unmarked" or "undercover" cars. Exteriors were painted entirely white or conservative colors which contrasted with white front door panels. The full size CHP star, with the words "Highway Patrol" arched above, were displayed on front doors.

### SMPV EQUIPMENT

The SMPVs were equipped as follows:

- Emergency Lighting - No overhead emergency lights were mounted on SMPVs. Vehicles were equipped with (1) flashing "wigwag" headlamp systems; (2) one 4 1/2 inch diameter adjustable red spotlamp mounted at the left windshield post; (3) one 4 1/2 inch diameter adjustable white spotlamp mounted at the right windshield post; (4) three rear-facing, low profile (2 1/2 inches high, 7 1/2 inches wide) "Bac-Off" flashing lamps mounted on the rear seat shelf - one red, one amber, one blue;
- Sirens - Electronic siren and public address speakers were mounted behind the grills;
- Pushbumpers - SMPVs were not equipped with pushbumpers, except the two cars assigned to the Oakland CHP Area on Test Site #1 had low-profile pushbumpers (Buddy Bumpers).
- Antennas - A standard passenger car antenna was mounted on the right front fender to replace the standard whip antenna. The 19 inch high antenna was moved from the roof to the midline of the trunk lid. These changes eliminated the nighttime silhouette which is characteristic of the standard antennas.
- Scanners - Programmable 30 channel scanners, capable of monitoring CB radio frequencies as well as law enforcement frequencies, replaced the standard CHP scanners.



- Shotguns - Horizontal and diagonal mounting positions were used to secure shotguns in the SMPVs. Placement of the guns in these positions eliminated the prominent nighttime vertical silhouette which is characteristic of standard CHP patrol cars.

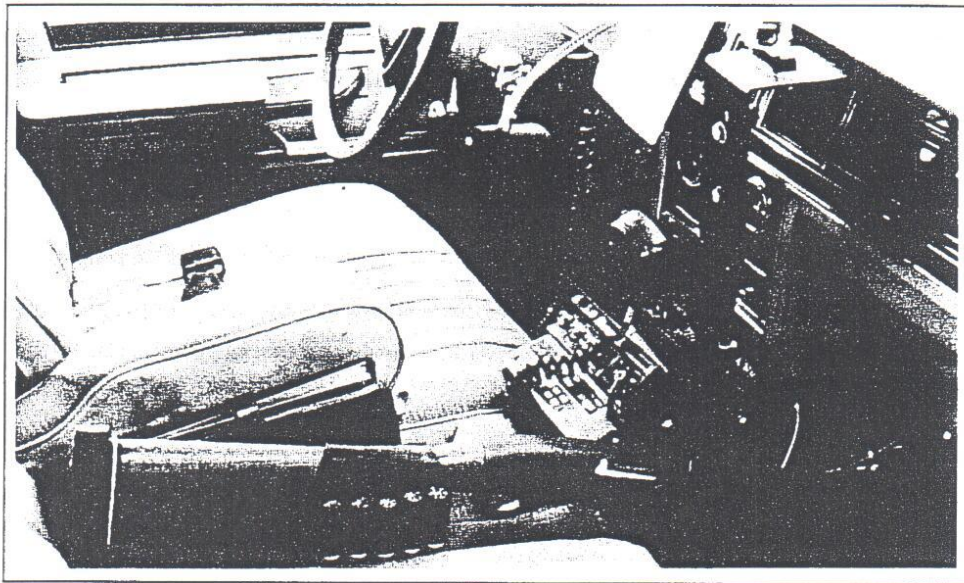


FIGURE 12. Diagonal mounting position of a shotgun.

#### SMPV DISTRIBUTION

The SMPVs were assigned to CHP Area commands in which test sites were located. Table 1 provides initial Field distribution and vehicle information.

Commands to which SMPVs were assigned were responsible for the maintenance and repair of the SMPVs. When an SMPV was placed out of service due to mechanical problems, it was repaired on a priority bases. In those cases in which a SMPV could not be placed back in service in a timely manner, a reserve SMPV from the CHP Motor Transport Section was placed into service.





LOCATION		YEAR	VEHICLE DESCRIPTION		
TEST SITE	CHP AREA		MAKE	MODEL	COLOR
1	OAKLAND	8 4	FORD	LTD	FAWN METALLIC
1	OAKLAND	8 5	CHEVROLET	CELEBRITY	WHITE
1	HAYWARD	8 5	CHEVROLET	CELEBRITY	SLVR BLUE METALLIC
1	HAYWARD	8 5	FORD	MUSTANG	WHITE
2	MODESTO	8 5	CHEVROLET	CELEBRITY	DRIFTSAND BEIGE
2	MERCED	8 5	FORD	MUSTANG	SILVER METALLIC
3	BAKERSFIELD	8 4	FORD	LTD	CREAM BEIGE
3	BAKERSFIELD	8 5	CHEVROLET	CELEBRITY	WHITE
3	FORT TEJON	8 5	FORD	MUSTANG	WHITE
3	NEWHALL	8 4	FORD	LTD	LIGHT BUCKSKIN
3	NEHWALL	8 5	DODGE	DIPLOMAT	WIND BLUE
3	VERDUGO HILLS	8 5	CHEVROLET	CELEBRITY	FAWN BROWN
4	SANTA ANA	8 5	CHEVROLET	CELEBRITY	CHESTNUT METALLIC
5	WESTMINSTER	8 5	FORD	MUSTANG	WHITE
5	WESTMINSTER	8 5	FORD	MUSTANG	WHITE
	RESERVE SMPV	8 6	DODGE	DIPLOMAT	WHITE
	RESERVE SMPV	8 6	DODGE	DIPLOMAT	WHITE

TABLE 1. SMPV distribution and descriptions.

Five SMPVs which reached the CHP's "run-out" mileage of 85,000 miles were replaced with white SMPVs converted from the CHP enforcement vehicle fleet.

Operational guidelines permitted SMPVs to be transferred between CHP Area commands participating in the pilot program. However, only one vehicle trade occurred during the program. Four months into the pilot program, the Santa Ana CHP Area (Test Site #4) exchanged a chestnut metallic Chevrolet Celebrity with the Westminster CHP Area (Test Site #5) for a white Ford Mustang.

### SMPV DEPLOYMENT AND OPERATIONS

Guidelines for the deployment of SMPVs were established prior to the commencement of Field operations. These guidelines provided that each SMPV should be operated on a test site at the minimum rate of ten work shifts (80 hours) per week. Each participating Area command was to make reasonable efforts to maintain this rate on a monthly basis. Such a minimum deployment standard would ensure that a consistently high level of SMPV exposure occurred at all test sites.

The minimum deployment standard represented a challenging goal for participating Areas. There were, however, times when the participating Areas were unable to meet that standard due to a number of factors, i.e., SMPV mechanical failures or downtime for routine maintenance. Although SMPVs were repaired on a priority basis, Area commands were not always able to operate them at ten shifts per week.



RATING SCALE	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
	1	2	3	4	5	
COMPARED TO THE VERTICAL SHOTGUN MOUNTING POSITION USED IN BLACK AND WHITE PATROL CARS, I PREFER THE FOLLOWING SHOTGUN MOUNTING POSITIONS:						MEAN RATING
<ul style="list-style-type: none"> <li>HORIZONTAL MOUNT BETWEEN FRONT BUCKET SEATS.</li> </ul>						3.47
<ul style="list-style-type: none"> <li>DIAGONAL MOUNT, MUZZLE DOWN AND STOCK UP.</li> </ul>						2.77

TABLE 4. Mean ratings for officer preference on shotgun mounting positions.

### OFFICER COMMENTS

Throughout this section, quantitative data from the questionnaires have been analyzed. In addition to the numerical ratings, officers were given an opportunity to offer subjective comments. Given the limitations of the quantitative information, these brief assessments may provide insight into various aspects of SMPV operations.

The comments included here are a general representation of those made on the questionnaires. There were complaints about limited SMPV enforcement against passenger vehicle drivers, however, those comments are not included here because they fall outside the scope of the questionnaire survey. Actual comments which follow address issues related to SMPV suitability.

#### EFFECTIVENESS

Several respondents commented on the effectiveness of SMPVs in terms of enforcement and patrol. Five comments are included here.

*SMPVs are more effective than black and white patrol cars.*

*Good program. I have found it effective for truck speed enforcement.*

*I feel SMPVs are more effective than black and white patrol cars in effecting stops on trucks and passenger vehicles. They could prove beneficial if used in routine patrol in conjunction with a public awareness program.*



*The public is getting used to the white cars [SMPVs], as much as the black and white cars. Different colored cars would help confuse them. These cars would be excellent for regular patrol use.*

*CB radios have effectively negated the advantages of SMPVs. Truckers are very alert to SMPVs. They know what the main objective of the SMPV program is and immediately warn all truckers about a SMPV's location. It is rare to be on a freeway more than two or three minutes without being "burned." Solution: completely unmarked vehicles for commercial enforcement or drop the program.*

#### DRIVING CONCERNS

Several respondents made comments pertaining to the driving of SMPVs in traffic. The three comments provided below allude to the inconspicuous characteristic of the SMPVs. The first two comments indicate that public nonrecognition of the SMPVs assisted in the movement of SMPVs through traffic. The third comment addresses the concern that SMPVs may not be afforded the right-of-way which is customarily provided to a black and white patrol car.

*The SMPV is much more effective [than black and white patrol cars] when rapidly moving through traffic without using emergency lights.*

*The SMPV is very easy to move through traffic without emergency equipment, due to motorists not suddenly slowing in front of you when they recognize a traditional patrol car.*

*I found I had to drive much more defensively at night when operating a SMPV.*

#### SHOTGUN MOUNTING

A few respondents commented on the shotgun mounting positions used in the SMPVs. Their comments are provided below.

*I prefer the horizontal shotgun mounting position between the bucket seats because of safety for the passenger if involved in a collision.*

*This [horizontal shotgun mounting position between bucket seats] allows the shotgun to be unlocked prior to making a known felony car stop. If you choose not to use the shotgun, it can be secured by flipping the lock closed as you exit the car.*





*As an officer safety item, I believe that the horizontal and diagonal shotgun mounting should be changed. In a tense moment, I believe valuable time would be wasted in removing the shotgun from its present rack position(s).*

*I won't use the diagonal mount shotgun.*

### **EVALUATIONS BY CHP AREA COMMANDERS**

Commanders of the ten CHP Areas in which the SMPVs were deployed prepared overall evaluations of program operations twice during the Field operation phase of the program. The evaluations were prepared in June, and again in December 1987. The evaluations addressed SMPV operations and safety, as well as other issues. The following discussion addresses issues related to the suitability of SMPVs and is a consolidation of the comments submitted by Area Commanders.

The CHP did not experience any safety problems relating to the nontraditional character of SMPVs. During the beginning phase of the program, it was anticipated that patrol vehicle collisions might increase due to public nonrecognition of the SMPVs as enforcement vehicles. Officers' driving attitudes and safety awareness were stressed during the required program training. No CHP-at-fault collisions occurred with the SMPVs. However, as previously discussed, two minor accidents involving SMPVs occurred but were not attributed to the absence of traditional CHP vehicle markings or equipment.

When the SMPVs were first deployed, some officers noticed a slower response by motorists to emergency lights. However, after the second month of Field operations, the slower response had disappeared. The SMPVs were used effectively on felony enforcement stops and were operated Code 3 (lights and siren activated) on freeways and surface streets without incident.

The two SMPVs assigned to the Oakland CHP Area on Test Site #1 were equipped with low-profile chrome pushbumpers mounted directly to the front bumpers. Officer safety and motorists services were enhanced by the addition of these bumpers to allow the safe removal of disabled vehicles from traffic lanes.

### **PROGRAM OFFICER INTERIM REPORTS**

The Program Officer monitored all aspects of the program, including the suitability of SMPVs for truck enforcement and general CHP Field functions. Suitability of SMPVs was viewed in terms of safety and effectiveness, when compared to black and white patrol cars. Interim reports describing program development and operations were prepared throughout the Field phase of the program.





## SUMMARY

Officers operating SMPVs were able to perform their duties without diminishing safety to themselves or the public. The low-profile equipment and less conspicuous markings and color schemes of the SMPVs did not have a negative effect on patrol car driving character. In other words, SMPVs proved to be just as suitable as black and white patrol cars for the varied driving functions required of officers. Analysis of the survey questionnaires and review of reports by Area Commanders and the Program Officer indicates that SMPVs are as effective as black and white patrol cars in the following functions:

- Freeway patrol.
- Traffic control at emergency incidents.
- Code 3 (emergency) and Code 2 (urgent) vehicle operation.
- Effecting enforcement stops on both trucks and passenger vehicles.

Likert scale ratings suggest that officers did not have strong positive or negative impressions about SMPV effectiveness and driving character compared to black and white patrol cars. Officer comments and Area Commander and Program Officer reports indicate that SMPVs may be more effective than black and white patrol cars in detecting truck and passenger vehicle violations.



RATING SCALE	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
	1	2	3	4	5	
BASED ON ENFORCEMENT CONTACTS, THE PUBLIC IS RECEPTIVE TOWARDS THE USE OF SMPVs FOR:						MEAN RATING
• HEAVY TRUCK RULES OF THE ROAD ENFORCEMENT.						4.42
• PASSENGER VEHICLE RULES OF THE ROAD ENFORCEMENT.						3.62

TABLE 10. Mean ratings for officer perception of public attitude.

### OFFICER COMMENTS

Officers completing questionnaires were given the opportunity to offer comments about public attitude. The following five comments exemplify officers' perceptions about public acceptance of the program.

*The program has been very well received by the public in all my enforcement stops. They are behind us in this program.*

*I believe the SMPVs are extremely effective (especially from a psychological standpoint). I've heard no one make a negative comment.*

*The public is receptive to SMPV enforcement of heavy truck violations but appear to be aware of SMPV restrictions and drive accordingly.*

*In the contacts I have made, even though a citation was issued, the commercial operators are very receptive to the SMPV program. Many have stated, "it's about time" we got a program like this.*

*Only one negative comment was made by a citizen about a passenger vehicle enforcement stop. He quoted a newspaper article incorrectly.*



### LEGISLATIVE CONCERN

Media coverage was intense during the first four months of operations. The coverage was generally positive, however, in February and March of 1987 some negative coverage was encountered. This coverage resulted from some legislators' concerns about the number of passenger vehicle drivers who were issued citations by SMPV officers. That coverage resulted in some mail to the media and editorials supporting the use of SMPVs to cite unsafe passenger vehicle operators.

In February 1987, after 30 days of program operations, the CHP released preliminary enforcement data. This data indicated that 32.2 percent of total citations issued statewide by SMPV officers were to drivers of passenger vehicles. The number of citations issued to passenger vehicle operators drew legislative attention, causing the program to come under renewed scrutiny by some members of the Assembly Transportation Committee. The Committee questioned whether or not the SMPV program was being focused primarily toward truck enforcement as required by Senate Bill 1873.

The Commissioner of the CHP testified before the Committee, explaining the SMPV program enforcement guidelines pertaining to passenger vehicles. He reaffirmed that SMPV officers would issue citations for flagrant or unsafe passenger vehicle violations. The Commissioner also assured the Committee that the program was being administered within the mandates of Senate Bill 1873 and that truck enforcement was the focus of the program.

During this period of legislative concern, some Legislators' offices reported receiving phone complaints about the program, while others reported that constituents were in support of the program. One office reported that phone calls were running six to one in favor of the program.

### PUBLIC ACCEPTANCE

Judicial response to the program was overwhelmingly positive. Officers who appeared in court on SMPV citations did not encounter any opposition by judges during the proceedings. In every court case that was monitored, the marking of the patrol vehicles was not an issue.

Overall, public acceptance of the use of SMPVs was refreshingly high for the duration of the program. Many officers while on patrol received favorable comments from motorists. It was not unusual for SMPV officers conducting truck enforcement stops to observe passing motorists give the "thumbs up" sign, wave, or smile. Most negative reaction to the program came from truck drivers, even though most truckers supported the program.

Public correspondence to the CHP about the program was minimal but generally positive. Few adverse comments were received and only one known citizen complaint was received as the result of a SMPV enforcement contact. (The complaint was from a truck driver who felt he did not deserve a speeding citation. The complainant made no reference to the program). In fact, telephone calls were received from passenger vehicle operators commending the CHP for its truck enforcement efforts.



## CONCLUSIONS

This study examined the effects of using SMPVs for the enforcement of heavy truck rules of the road. Paramount to the success of the pilot program was whether or not a reduction in the rate of TAF accidents was realized. The Department measured the TAF accident rate on test sites where SMPVs were deployed and on other freeways. The most significant reduction occurred on the test sites.

Use of SMPVs proved to be a valuable tool in the detection and apprehension of truck drivers operating in an unlawful manner. Officers operating SMPVs generated more truck citations per officer patrol hour and focused a much higher percentage of total enforcement activity toward truck drivers than officers operating black and white patrol cars.

Use of SMPVs had no impact on officer or public safety. Specially Marked Patrol Vehicles proved to be just as suitable as black and white patrol cars for the varied functions required of CHP officers.

Public acceptance of the SMPV program was perceived by the CHP to be high, and judicial response was perceived to be positive. A survey of citation dispositions did not reveal any judicial bias in favor of, or against, the use of SMPVs.

Even though the SMPV pilot program was successful in reducing the number of TAF accidents and in focusing enforcement efforts toward truck drivers, the program was not without problems. Because the Department had to re-direct existing resources to administer the program, other CHP activities may have been affected. However, the impact was not measured empirically.

The SMPV program demonstrated that officers operating SMPVs and deployed to primarily enforce truck rules of the road were successful in reducing TAF accident rates.

It is recommended that the CHP maintain the option of using SMPVs for truck enforcement on segments of highways that meet one or more of the following criteria:

- A highway segment experiencing a high rate of truck accidents in which the primary collision factor is well suited for the use of SMPVs.
- A highway segment experiencing a high degree of noncompliance with Vehicle Code laws pertaining to truck speed, lane change, turning, starting, backing, and following too closely.
- A highway segment that carries a high volume of truck traffic and experiences a moderate-to-high rate of noncompliance with pertinent Vehicle Code laws, where traditional enforcement strategies have been ineffective.





Truck-at-fault accidents constitute a small proportion of total motor vehicle accidents. The CHP broad-based commercial enforcement activities, hazardous materials programs, and liaison with the trucking industry play a major role in keeping this proportion small. The CHP must, however, seek ways to reduce the number of truck accidents caused by driver error. The use of SMPVs is suitable for this purpose.



FIGURE 23. Four models of SMPVs.



ANNEX A

Senate Bill No. 1873

CHAPTER 1243

An act to add and repeal Section 2423 of the Vehicle Code, relating to vehicles.

[Approved by Governor September 26, 1986. Filed with Secretary of State September 26, 1986.]

LEGISLATIVE COUNSEL'S DIGEST

SB 1873, Seymour. Department of the California Highway Patrol: special patrol vehicles.

Under existing law, the Department of the California Highway Patrol has responsibility for the patrol of and the investigation of motor vehicle accidents on the highways.

This bill would direct the department to institute a pilot program that would utilize vehicles not readily identifiable as regular patrol vehicles, but which meet identification requirements specified by regulation and exhibit the official insignia of the department, with enforcement personnel wearing the official uniform of the department, for the primary purpose of enforcement of highway safety violations by drivers of motortrucks of 3 or more axles over 6,000 pounds unladen weight, truck tractors, combinations of a motortruck and another vehicle or vehicles over 40 feet in length, and any truck or combination of vehicles over 6,000 pounds unladen weight transporting hazardous materials. The bill would limit the pilot program to 4 department geographical divisions with not more than 15 vehicles, and personnel assigned as specified. The bill would direct the department to prepare and submit a report of its findings, conclusions, and recommendations to the Legislature on or before March 15, 1988.

The bill would repeal these provisions on January 1, 1988.

*The people of the State of California do enact as follows:*

SECTION 1. (a) The Legislature hereby finds and declares as follows:

(1) The current increase in truck accident rates has created great concern from the public, governmental agencies, the Legislature, and other entities interested in traffic safety.

(2) There is continued disregard for safe, legal operation by some drivers of heavy commercial vehicles.

(3) These drivers are able to use various methods of communication to provide a network affording evasion from apprehension for unsafe, illegal driving practices.

(4) The Department of the California Highway Patrol, other than a limited air patrol operation, has no equal ability to combat

professional evaders with respect to illegal driving of heavy commercial vehicles.

(5) When a heavy commercial vehicle is involved in an accident with other vehicles, the potential for fatalities is increased dramatically.

(6) This increased potential for fatalities in heavy commercial vehicle accidents needs special action to reduce the accident rate and control illegal, unsafe driving practices.

(b) It is, therefore, the intent of the Legislature in enacting this act to create a pilot program authorizing the use of special patrol vehicles by Highway Patrol officers in enforcing heavy commercial vehicle highway safety and in apprehending violators who drive those heavy commercial vehicles.

SEC. 2. Section 2423 is added to the Vehicle Code, to read:

2423. (a) The department shall conduct a pilot program involving its use of vehicles not readily identifiable as regular patrol vehicles, but which meet the identification requirements of Section 1141 of Title 13 of the California Administrative Code and exhibit the official insignia of the department, for the primary purpose of enforcement of highway safety violations by drivers of vehicles described in subdivisions (a), (b), and (f) of Section 34500 and drivers of vehicles of more than 6,000 pounds unladen weight described in subdivision (g) of Section 34500 and the apprehension of those violators. For this purpose, the department may employ any existing unmarked vehicle which is determined to afford the highest likelihood of continued nonrecognition, and may periodically repaint or remark any vehicle so used for this purpose if the vehicle continues to meet the identification requirements of Section 1141 of Title 13 of the California Administrative Code and exhibits the insignia of the department. Vehicles authorized by this section shall be used primarily for purposes of this section.

(b) The pilot program shall be limited to four of the eight department geographical divisions with not more than 15 vehicles assigned to the program, and shall utilize personnel already assigned for commercial vehicle enforcement purposes. Enforcement personnel participating in the pilot program shall wear the official uniform of the department.

(c) The department shall prepare and submit to the Legislature on or before March 15, 1968, a report of its findings, conclusions, and recommendations concerning the pilot program.

(d) The report shall include, but not be limited to, the following:

(1) The cost effectiveness of special commercial vehicle enforcement.

(2) The impact on the commercial vehicle accident rate in the pilot program areas.

(3) A comparison of program area citation and conviction activity with regular road enforcement citation and conviction activity.

(4) The extent to which vehicles are used for purposes other than the primary purpose set forth in subdivision (a).

(5) Public acceptance.

(6) Problems resulting from the use of specifically marked patrol vehicles.

(e) This section shall remain in effect only until January 1, 1968, and as of that date is repealed unless a later enacted statute which is enacted before January 1, 1968, deletes or extends that date.