

Treasurer—Continued

salary adjustments. Seven positions of proof machine operators are deleted and four punched card operators are added for the new procedure. We believe the anticipated savings of \$6,500 per year subsequent to 1954-55 Fiscal Year is conservative. After the system has been in operation sufficient time to correct minor procedural "bugs" and the personnel become familiar with the new methods, additional savings may be realized. A further reduction of personnel was effected in the accounting section of the Controller's office, due to this new procedure.

One-time costs are approximately \$8,326. The amount of \$2,940 is for freight, cartage and express on new equipment. The balance of \$5,386 is for operating expenses, rental of temporary equipment, purchasing electroplates and form tractors, etc., for the new procedure.

The increase of \$11,874 in fiscal agency fees is due to large issues of Veterans School Building Aid, and San Francisco Harbor Revenue Bonds which increases fees for redemption.

The increase of \$14,594 for additional equipment is due primarily to the purchase of bond storage lockers at a cost of \$12,000 and additional equipment for new procedure.

The decrease of \$6,562 in insurance is due to the purchase of two years' insurance for movement of securities at a savings of \$1,400. It was necessary to obtain funds from the Emergency Fund to purchase the two-year premium.

We recommend approval of the budget request as submitted.

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

ITEM 143 of the Budget Bill

Budget page 482  
Budget line No. 23

For Support of California Highway Patrol From the Motor Vehicle Fund

Amount requested .....	\$14,641,836
Estimated to be expended in 1953-54 Fiscal Year .....	13,117,552
Increase (11.5 percent) .....	\$1,524,284

Summary of Increase

	Total increase	INCREASE DUE TO		Budget page	Line No.
		Work load or salary adjustments	New services		
Salaries and wages .....	\$992,902	\$308,311	\$684,591	489	9
Operating expense .....	182,973	182,973	---	489	10
Equipment .....	353,329	-78,375	431,704	489	11
Less:					
Increase in Rentals from Department of Motor Vehicles .....	2,465	2,465	---	489	21
Plus:					
Decrease in accident re- port fees .....	-6,600	-6,600	---	489	22
Decrease in payment for photographs .....	-785	-785	---	489	23
Total increase .....	\$1,524,284	\$407,989	\$1,116,295	489	25

## California Highway Patrol—Continued

## RECOMMENDATIONS

Amount budgeted .....	\$14,641,836
Legislative Auditor's recommendation .....	13,525,541
Reduction .....	\$1,116,295

## ANALYSIS

Our recommended reduction of \$1,116,295 consists of the following items:

## Enforcement Division

Salaries and Wages:	
State traffic sergeant (20) .....	\$109,872
State traffic officers (200) .....	537,075
Intermediate typist-clerk (10) .....	28,440
Equipment:	
Automobile—additional .....	371,100
Radio—additional .....	60,604

## Administration

Salaries and Wages:	
Intermediate typist-clerk (1) .....	\$2,844
Key punch operator II (1) .....	2,988

## Training Academy

Salaries and Wages:	
Cook (1) .....	\$3,372

The problem of vehicular transportation of people and commodities in the State of California is acute. The main phases of this problem appear to be (1) Financing of sufficient miles of new highways to relieve the present congestion and the maintenance of our present highway system. (2) Enforcement of traffic laws to provide a maximum amount of safety for the users of our highways.

These problems are critical in California largely due to the constant increase in motor vehicle registration. Total registered vehicles as of November 30, 1953 was 5,958,808, the highest of any of the 48 states. To meet these problems the State of California is spending millions of dollars to construct new highways and maintain the present ones. Taxes on motor vehicles and related commodities are now at an all time high, yet we are informed that present revenues are not sufficient to solve the highway construction problem.

In an attempt to solve the enforcement problem the Legislature has approved considerable increases in personnel for the California Highway Patrol during the past nine years as shown in the following table.

## Expenditures of the California Highway Patrol for Personnel

<i>Fiscal Year</i>	<i>No. of positions</i>	<i>Amount salaries and wages</i>
1946-47 .....	1201	\$4,203,373
1947-48 .....	1297	4,838,851
1948-49 .....	1633	5,917,782
1949-50 .....	1711	6,339,391
1950-51 .....	1759	6,678,026
1951-52 .....	1904	7,602,733
1952-53 .....	2053	8,773,911
1953-54 (estimated) .....	2071	9,672,044

California Highway Patrol—Continued

The Legislature has also approved positions in the Department of Motor Vehicles which affect the total enforcement problem.

Expenditures for Driver Improvement Program in Department of Motor Vehicles

<i>Fiscal Year</i>	<i>Amount salaries and wages</i>
1953-54 (estimated) -----	\$926,198
1954-55 (proposed) -----	987,658

Although this function has been going on for many years the expenditures for prior years could not be separated from expenditures for other activities.

Apart from the above expenditures, many local safety organizations are incurring expenditures and the time of civic minded citizens is being devoted to traffic safety programs.

The request of the California Highway Patrol for 220 additional traffic officers and sergeants will cost over *one million dollars* the first fiscal year. The total estimated expenditures of the California Highway Patrol for the current fiscal year is \$15,380,810.

The approval or disapproval of increased personnel for the California Highway Patrol for enforcement purposes is strictly one of judgment. Increased expenditures for the California Highway Patrol decreases the amount available for state highways correspondingly.

Our recommendation for disapproval of additional uniformed personnel for the California Highway Patrol is based on the following factors:

1. Justification given for additional uniformed personnel is inadequate. Basic factors for reducing accidents or keeping them at an irreducible minimum have not been established.
2. Modern methods for enforcement, such as electronic traffic control devices are not being considered. Forty-two states now using such devices report decreases in accidents and increased efficiency of manpower at a minimized cost to the taxpayer.

The use of electronic traffic control devices has proven by actual test that:

- a. Excessive speeds of motor vehicle have been reduced.
- b. A reduction in traffic enforcement personnel is possible with increased enforcement activity.
- c. The additional hazard of a police car pursuing a violator at a dangerous speed is eliminated.
- d. A decrease in costs of automobile operation of enforcement agencies has resulted.
- e. The percentage of convictions in courts has increased considerably.

The use of electronic devices for traffic control is not new. An article appearing in the Saturday Evening Post on November 12, 1949 explains its use and effectiveness in the State of Ohio.

The following excerpts from publications point out the advantages of the use of electronic traffic control devices.

## California Highway Patrol—Continued

Excerpts from Article "Radar Methods of Speed Control" by Carl R. Finegan, Sheriff of Lorain County, Ohio, published in "The California Highway Patrolman" March, 1950

"One noticeable fact stood out. It was this: Motorists did slow down. The accident rate decreased and not only the motorists in Lorain County were conscious that they were being checked but motorists from neighboring counties were driving more carefully. In fact, I had a salesman come into my office who remarked that the driver of the car in which he was riding said to him that he had better slow down because they were now in radar country. So far in court we have not had any motorist plead 'not guilty'."

"How does the speed meter reduce the personnel used in traffic? Recently I talked to Capt. Clem Owens of the Columbus, Ohio, Police Department. Here is what Captain Owens told me: "During the first 6 months of 1949 in Columbus, we had a force of 30 motorcycle policemen checking traffic. These 30 men made 946 arrests, and traveled 121,515 miles to do it. However, with the use of the speed meter, 853 arrests were made, and 783 warning tickets were given out. We used only two men. The thing to note here is the fact that with the use of radar our equipment traveled no miles and we eliminated the use of 28 men who then could be placed in other branches of law enforcement. The men we used to make our traffic arrests were policemen who had been placed on light duty."

"Here you will note that there has been a saving of manpower and the cost of operating equipment. Again with the use of radar, weather conditions do not have to be perfect. If it has been raining, and the streets are slippery, you are not subjecting your men to dangerous hazards such as you would have when using motorcycles or squad cars."

"The speed meter using the principles of radar is here to stay. It is a scientific instrument which eliminates the human element when checking the speed of a passing motorist. It will do the work of several motorcycle men, cut down the cost of operating your equipment, save the lives of your men, or at least keep them from being seriously injured when chasing a crazy motorist. You will be giving the public something to make them respect your department, because you will be bringing home to them that you are not only protecting their lives, but those of their children as well."—Reprinted from FBI Law Enforcement Bulletin.

Excerpts from Article Entitled "Slow Down, Mr. Speeder!" from the April, 1953, issue of "Service," a Publication of Cities Service, by Robert I. Marshall

NOW—IN 26 STATES—THE "RADAR COPS"  
ARE WATCHING, AND THEY USUALLY GET THEIR MAN

"One morning last year the police on Connecticut's Merritt Parkway, flagged down a complacent motorist driving with one hand and giving himself an electric shave with the other. A salesman, he said, he saved time that way—and had been doing it for two years. It gave him, he pointed out, 'more time to sleep mornings.'"

"The reckless audacity of traffic violators never stops amazing the police. The speed limit at any point on the Merritt Parkway is 55 miles an hour. The writer has occasion to use that parkway frequently, and at 55 miles per hour—moving on the inside "slow" lane—he is passed by a steady stream of vehicles. It is not unusual for cars to hit 70 miles an hour or more \* \* \* and they have been known to exceed 90. Top speed, so far, police say, has been 120 miles per hour."

"Something, safety officials have been saying all along, must be done about it, and now, with the help of modern science, they see a ray of hope. Nor is this just a figure of speech, for the new hope rides on an actual ray—the beam of a radar device which follows a moving car, measures and records its speed, and sometimes snaps an identifying picture. Already, according to records compiled by the National Safety Council's police division, some 115 cities in 26 states are employing the radar system, or some other form of efficient mechanical speed recorder."

"Facing the evidence of these well-tested and almost infallible instruments, there isn't much that an offender can do but pay the penalty, for the courts generally accept the testimony of the robot witnesses. Of 56,000 arrests made by enforcement agencies, utilizing mechanical devices, only 318 have failed of conviction."

California Highway Patrol—Continued

"On that national showing, the defendant figures to enjoy just about one chance in 1,800 of beating the rap.

"None of these devices runs afoul of court rejection of "entrapment" methods of catching speeders. Entrapment is held to exist when an unmarked police vehicle 'paces' another car, virtually inviting the driver to run a race with it. In the case of these devices, though unseen by the motorist, the driver is usually warned not only by the usual speed limit signs but by additional roadside notice as to policing methods.

"In every case where a turnpike (the New Jersey Turnpike) speeder has been arrested as a result of this operation, Lieut. Probert reveals, the offender has entered a plea of guilty. If contested, the police would be able to prove the accuracy of their equipment, he adds, since it is carefully tested before each use.

"A secondary advantage of this scientific approach is that it keeps the police vehicles themselves out of the traffic stream. There is danger in an operation which requires a police car to chase a speeder through heavy traffic, particularly since a speeder, becoming aware of the chase, may attempt a getaway at even a higher speed. Now, where immediate arrest rather than the issuing of a summons is the police policy, this can be safely arranged by having the arresting officers stationed a mile or so down the road beyond the clocking device. Officers at the measuring post simply radio an identification to the waiting cruiser, which then intercepts the speeder.

"One Michigan city, replying to an inquiry by the National Safety Council, reported that of 425 violators who paid fines, only two objected to the use of mechanical devices. Others felt it would be a good thing to have more of them used, and observed that they would rather be checked by an electrical device than by an officer on a cycle or in a car."

3. Maximum efficiency has not yet been obtained from the present available force due to inadequate administrative procedures which are now being studied. Until the present force is operating with maximum efficiency and modern methods of enforcement are employed, the problem of adequate enforcement cannot be properly evaluated nor does it seem wise to add additional uniformed men.

4. Good radio communications which is an extremely vital tool in enforcement is lacking in the California Highway Patrol. Improved communications would substantially increase the efficiency of the present force.

To provide better communications the Legislature in the 1952-53 General Session made available a total of \$470,855 for use to contract with a private corporation to provide an up-to-date system and adequate maintenance for the California Highway Patrol. The amount of \$470,855 was composed of \$320,855 deleted by the Legislature from the California Highway Patrol Budget, but left intact under the control of the Department of Finance to be used for contractual purposes, and \$150,000 additional added by item 148.5. The Pacific Telegraph and Telephone Company made a survey and a proposal which was made available to those concerned on May 18, 1953.

Item 148.5 in the Budget Act of 1953 reads as follows:

For augmentation of Item 148 to be allocated by executive order of the Department of Finance to the Department of California Highway Patrol for rental and maintenance of communication facilities, payable from the Motor Vehicle Fund

150,000

No expenditure shall be made from this item until the Department of Finance has verified and substantially concurred in the technical data, cost comparison, and offer contained in the reports on the communication system of the California Highway Patrol made to the Legislature pursuant to the resolution of the Senate Finance Committee under date of March 4, 1953.

California Highway Patrol—Continued

Several studies and reports have been made to assist the Department of Finance in making a determination. One study on which a report was rendered involved a state-wide survey of most California Highway Patrol radio installations and areas and a trip to eastern states to study the contract arrangements employed there. However, at this writing no decision has been made nor to our knowledge a concrete plan for improving radio maintenance been adopted.

5. As a direct result of recommendations of the Senate Finance Subcommittee Report on the California Highway Patrol, 52 positions have been authorized to relieve the patrol of nonpolicing duties. Therefore, the time spent on these duties by patrolmen can be devoted to patrol work. Some of these positions were authorized to the Department of Motor Vehicles to take over registration and driver licensing in areas where patrolmen were doing this work. Other positions authorized were for brief service which has relieved the Highway Patrol almost entirely of this function. Within the Patrol itself 13 garage attendants and six automobile inspectors have been authorized to relieve patrolmen. The department requests 16 additional positions of garage attendant in this budget to relieve other patrolmen. We recommend approval of the request for 16 garage attendants. The work taken over by these 68 positions will allow the patrol that equivalent number of man hours for highway policing. In practical effect, relieving the patrol of these responsibilities gives it 68 more patrolmen.

The discontinuance of the auxiliary patrol which took time of supervisors and patrolmen in all areas of the State, has also added additional man hours to the patrol.

6. The Legislature provided the California Highway Patrol with class A cars for the purpose of increasing the efficiency of the present force. In the current fiscal year, \$269,913 additional money was provided to purchase 307 heavy cars.

In the 1952-53 Fiscal Year, the Legislature approved the idea of deploying special enforcement units in critical areas in the State. The patrol spent \$43,000 in 1952-53 and estimates it will spend \$50,000 in 1953-54. The use of these special enforcement units, we must assume, increased the efficiency of the patrol.

7. There is no assurance that costly increases in enforcement personnel will result in a decrease in accidents. Money spent on improved highways does show a decrease in the accident ratio as shown in the following table.

Table I  
Before and After Accident Rates for Completed Freeway Projects

Co. route and Dist. section	Length, miles	"Before" accident rate per million vehicle miles	"After" accident rate per million vehicle miles	Comment
III Sac-3-B	2.25	3.31 (1946)	1.07 (1948)	3-lane highway improved to 4-lane full freeway
IV SM-68-B	2.97	2.87 (1947)	0.67 (1949) (3-yr. average) (1950, 1, 2=1.02)	4-lane undivided to 4-lane full freeway
V SB-2-E	1.83	5.25 (1950)	1.73 (1952)	2-lane highway improved to 4-lane limited freeway
VII LA-26-D	2.01 (1950) 1.47 (1952)	3.22 (1950)	0.92 (1952)	4-lane undivided to 6-lane full freeway
X Mer-4-A	6.35	3.15 (1950)	1.89 (1952)	2-lane highway improved to 4-lane limited freeway

California Highway Patrol—Continued

Number of "Before" and "After" Accidents During One-year Period for Completed Freeway Projects

Dist.	Co. route and section	Length miles	Number of accidents during 1-year period	
			Before	After
III	Sac-3-B	2.25	39 (1946)	13 (1948)
IV	SM-68-B	2.97	120 (1947)	29 (1949)
V	SB-2-E	1.83	14 (1950)	6 (1952)
VII	LA-26-D	2.01 (1950)	72 (1950)	20 (1952)
		1.47 (1952)		
X	Mer-4-A	6.35	51 (1950)	36 (1952)

Many sections of our state highway show high accident frequency due to lack of improvement. We believe that additional expenditures proposed by the California Highway Patrol would be used more to the advantage of the motorist by diverting such moneys to highway improvement. A few of the locations where this money could be spent are shown in the following table.

Table II

Accident Rates for Proposed Future Freeway Projects

Dist.	Co. Rte. Sec.	Description	Length	Average accident rate per million vehicle miles for 2-year period	
				1951-52	1952 (only)
III	Pla-37-B,Cfx,D,C	½ mile south of Colfax to Gold Run	8.8	4.6	(1952 only)
IV	CC-14-B	North city limits of Hercules to junction Route 7 near Crockett	3.7	7.4	
IV	CC-75-B	Walnut Creek to Monument Junction	3.2	6.05	
IV	SM-68-SCar,C,RedwC,D,Mlp	Santa Clara County Line to Bransten Road	8.0	3.4	SM-68-C
V	SB-2-SB,P,Q	Los Olivos St. (Santa Barbara) to El Sueno Rd.	3.2	5.3	SM-68-D
V	SLO-2-A	San Miguel to Monterey County Line	4.4	6.2	(rural)
VI	Fre-4-B, Fre	0.4 mile south of Calwa Overpass to 0.4 mile north of Fresno city limits	3.0	5.9	
VI	Fre-4-C	Princeton Ave. to Herndon	6.3	4.0	
VI	Fre-41-Fre,R	East city limits of Fresno to ½ mile east of Clovis Ave.	3.3	8.1	
XI	SD-2-A,B	North city limits of San Diego to San Marcos Creek	10.9	4.2	

Enforcement—Radio Maintenance

We note that the charge for radio maintenance by the Division of Communications which appears in the 1954-55 Budget has dropped from \$150 to \$125 per unit for both the budget year and the current year. However, in the Department of Finance Management Analysis Report No. 602 on Radio Maintenance—Department of California Highway Patrol, which analyzes the merits of contractual radio maintenance versus state-provided maintenance, the actual cost of maintenance is reported to be \$105.17. We do not believe this reported actual cost is realistic due to the fact that the basis used for obtaining the cost figure is questionable. Subsequent cost figures shown in the same report have not taken into consideration all costs which we believe are applicable.

We wish to call attention to the fact that radio maintenance based on \$150 per unit was extremely unsatisfactory.

Administration ----- Reduction \$5,832

Two positions have been requested for Administration. We recommend that both positions be deleted. The position of intermediate typist-clerk is requested for the Personnel Section and is based upon approval of the additional traffic officers. Since we recommend deletion of the traffic officers the position in the personnel should be deleted also.

California Highway Patrol—Continued

The position of key punch operator is requested on the basis of work load. We recommend deletion of this position because we feel the justification of work load is unsatisfactory. No explanation of what work load is expected to increase has been provided. There has been no showing that the existing procedures have been reviewed and that the procedures are incapable of absorbing the additional work load. Furthermore, we recommend that the work being done by the Mechanical Analysis Section be completely reviewed by the department to determine the necessity of all the statistics being accumulated.

*Training Academy* ----- *Reduction \$3,372*

An analysis of the kitchen staff of the California Highway Patrol Training Academy reveals that it is adequate and that the position of cook should not be allowed. In comparison with the standards in the institutions for the number of cooks required to maintain an adequately staffed kitchen, the cooking staff at the academy is more than adequate.

**DEPARTMENT OF INDUSTRIAL RELATIONS**

ITEM 144 of the Budget Bill

Budget page 490  
Budget line No. 33

*For Support of the Department of Industrial Relations From the General Fund*

Amount requested -----	\$5,460,813
Estimated to be expended in 1953-54 Fiscal Year -----	5,320,821
Increase (2.6 percent) -----	\$139,992

**Summary of Increase**

	Total increase	INCREASE DUE TO		Budget page	Line No.
		Work load or salary adjustments	New services		
Salaries and wages -----	\$88,594	\$88,594	---	499	21
Operating expense -----	56,595	41,920	\$14,675	499	22
Equipment -----	46,225	46,225	---	499	23
Plus: Decrease in federal reimbursements to Divi- sion of Apprenticeship Standards -----	41,028	---	41,028	499	27
Total increase -----	\$139,992	\$84,289	\$55,703	499	35

**RECOMMENDATIONS**

Amount budgeted -----	\$5,460,813
Legislative Auditor's recommendation -----	5,200,630
Reduction -----	\$260,183

**ANALYSIS**

We have recommended the following reductions in the budget of the Department of Industrial Relations:

Division	Recommended Reductions			Total
	Salaries and wages	Operating expense	Equipment	
Administration -----	\$5,703	\$4,675	---	\$10,378
Industrial Accidents -----	20,282	10,000	---	30,282
Apprenticeship Standards --	---	---	---	219,523
Total reduction -----				\$260,183