

Freeway Service Patrol

Fiscal Year 2006-2007 Annual Report



Prepared by

The Transportation Agency for Monterey County

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Executive Summary

One of the goals of the Transportation Agency for Monterey County is to make it safer and easier for travelers to get to their destinations. The Freeway Service Patrol program helps to accomplish this goal by providing incident management on the most congested freeways. The program is a joint effort by California Department of Transportation, the California Highway Patrol and the Transportation Agency for Monterey County. The Freeway Service Patrol program is a privately-owned and publicly-contracted tow truck patrol service on designated routes on congested Monterey County freeways.

The Freeway Service Patrol program helps to maximize the effectiveness and efficiency of the freeway transportation system. It is a congestion management tool that strategically addresses traffic problems by quickly finding and removing disabled or stranded vehicles from the freeway. Removing obstructions on the freeways as rapidly as possible helps to eliminate problems that contribute to non-recurrent congestion. Monterey County Freeway Service Patrol operations occur on Highway 101 north of Salinas, and on State Route 1 in the City of Monterey and west of Reservation Road in City of Marina. The program operates a total of 27.6 miles on these two routes.

In fiscal year 2006-2007, Freeway Service Patrol program continued to operate with a high level of service, exceeding the expectations of motorists. Changes were implemented to the program, resulting in positive improvements. Service route in the Monterey Peninsula was modified to improve efficiency. New form of data collection practice was developed to ensure all assists get recorded. A public outreach campaign was conducted to increase awareness of the program. These changes all contributed to an enhanced program cost effectiveness. According to a model developed by California Department of Transportation, Monterey County tow truck program provides a benefit of \$2.20 for every \$1 invested in the program, which is a 120% improvement from the benefit reported for calendar year 2005. In terms of future improvement, staff will evaluate the possibility of extending service hours when funding becomes available.

Overview

Service Routes



Figure 1: Service Routes

To ensure maximum coverage over high-traffic areas while remaining within the allocated budget, the Freeway Service Patrol operates in two beats: one along US 101 (beat 1) and one along State Route 1 (beat 2), as shown in Figure 1.

The Freeway Service Patrol driver for Beat 1 patrols US Highway 101 from the San Benito County line to just north of the City of Salinas.

The Beat 2 driver operates on State Route 1 between State Route 68 in the City of Monterey and west of Reservation Road in City of Marina. Beat 2 previously ran from City of Monterey to State Route 156 near Castroville. The route was changed to improve efficiency of this beat starting in fiscal year 2006. Having to travel a shorter distance, drivers were able to patrol areas with higher percentage of total incidents more frequently. Consequently, the number of assists provided increased, resulting in a reduction in incident delay and enhanced cost-benefit ratio.

Freeway Service Patrol drivers patrol these two beats during times of peak traffic congestion: Monday through Friday. The morning shift provides motorist assistance from 6:00-9:00 a.m., while the afternoon shift runs from 4:00-7:00 p.m. The Highway

101 beat provided Sunday service on special event weekends and during summer months to accommodate tourists and visitors of the area.

Funding

Total operating costs for fiscal year 2006-2007 were \$257,415. Funding for the Freeway Service Patrol program is provided by the State of California's Freeway Service Patrol fund. The amount received for fiscal year 2006-2007 was \$196,050. Emergency call box funds, coming from vehicle registration fees, were used to meet the local match requirement in the amount of \$61,365.

Performance Summary

Motorist Assists

Figure 1 and 2 shows the number of assists that occurred in fiscal year 2006-2007. In fiscal year 2006-2007, new paper logs were created to streamline the recording process and to ensure that drivers captured all assists provided. Because of the difference in data collection practice, it is difficult to make a fair comparison of the total number of assists between different fiscal years. We will use the data of fiscal year 2006-2007 as the base year for future comparison.

In fiscal year 2006-2007, there were a total of 5,299 assists. Compared to other Freeway Service Patrol agencies of the same size, our Freeway Service Patrol program provided the highest number of assists. Santa Cruz County had 2,439 assists and Santa Barbara County supplied assistance to motorists 1,651 times. The Monterey County program makes up 0.8% of the total statewide assists. At each quarter, the level of assists stayed fairly constant at about 1,300. The fourth quarter, between October and December 2006, produced the highest number of assists in a single quarter.

Data for Motorist Assists

Figure 2: Motorist Assists (Fiscal Year 2006-2007)

	Jul 06 - Sep 06	Oct 06 - Dec 06	Jan 07 - Mar 07	Apr 07 - Jun 07		
Beat	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Total Assists	%
1	858	513	495	548	2,413	45.5%
2	459	864	759	805	2,886	54.5%
Total Assists	1,316	1,377	1,254	1,352	5,299	100.0%
%	24.8%	26.0%	23.7%	25.5%	100.0%	

Figure 3: Motorist Assists (Fiscal Year 2006-2007 by Quarter)

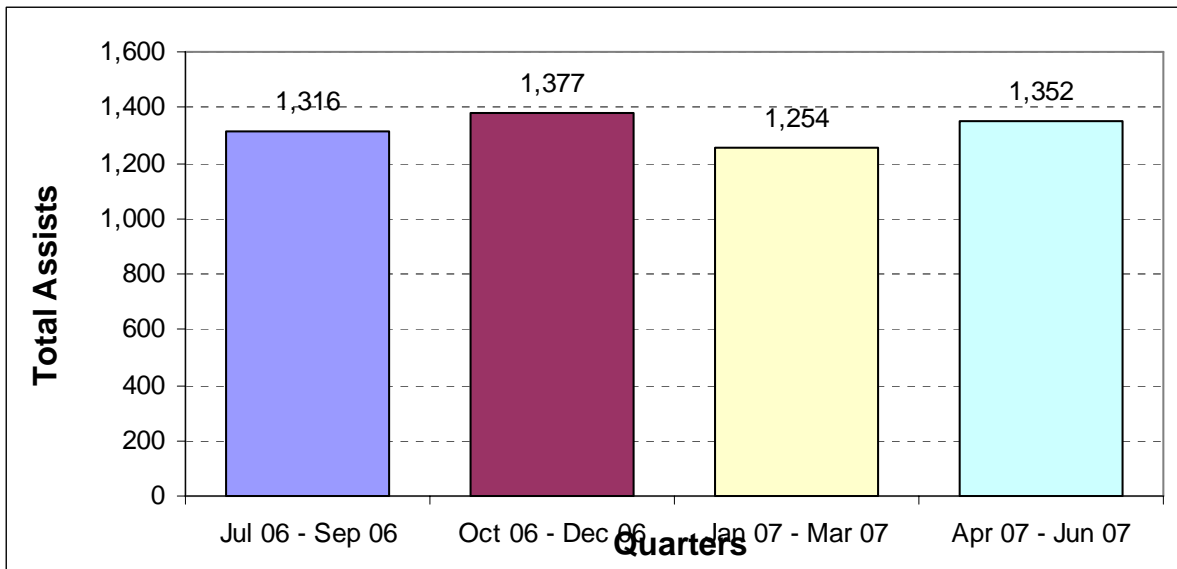
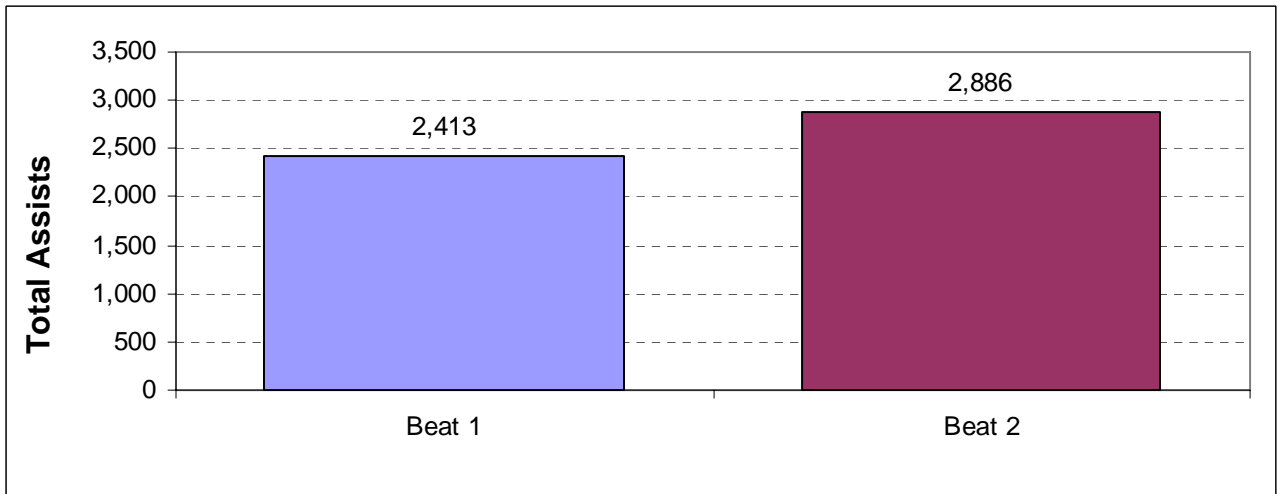


Figure 3 displays the total number of assists provided by each beat during fiscal year 2006-2007. Beat 2 makes up an approximate 55% of the total number of assists.

Figure 4: Motorist Assists (Fiscal Year 2006-2007, by Beat)



Vehicle Breakdowns

As shown by the data in Figure 4 and 5 collected by Freeway Service Patrol drivers, motorists requiring assistance for overheated vehicles, changing flat tires, and other

issues (including vehicle fire, directing traffic, and disabled vehicle) are the most common.

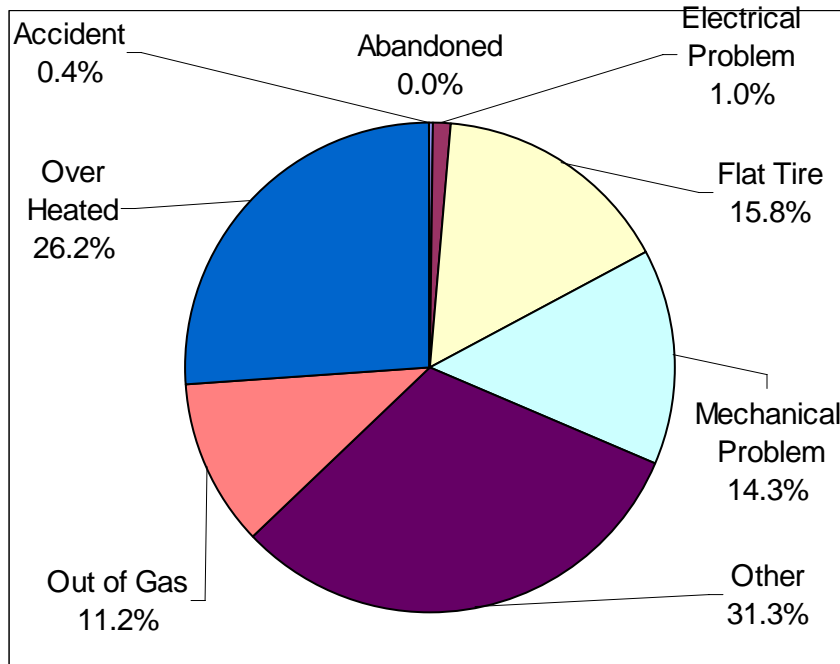
Compared to the statewide average, the Monterey County Freeway Service Patrol dealt with a much higher percentage of overheated automobiles, a slightly higher percentage of vehicles that were out of gas, and a smaller percentage of accidents.

Data for Vehicle Breakdowns

Figure 5: Causes of Vehicle Breakdowns (Fiscal Year 2006-2007)

Beat	Accident	Electrical Problem	Flat Tire	Mechanical Problem	Other	Out of Gas	Over Heated	Abandoned	Total Assists
1	8	45	563	352	420	345	679	0	2,413
2	10	7	272	406	1,238	246	707	0	2,886
Total	18	52	835	758	1,658	591	1,386	0	5,299
%	0.4%	1.0%	15.8%	14.3%	31.3%	11.2%	26.2%	0.0%	100.0%
Statewide	12.5%	2.3%	17.4%	14.7%	27.0%	10.4%	5.3%	7.0%	100.0%

Figure 6: Causes of Vehicle Breakdowns in Monterey County (Fiscal Year 2006-2007)



Although the majority of these causes are common and easily fixable, many motorists lack the proper tools or ability to repair their vehicles on their own. In this sense, providing motorists with Freeway Service Patrol assistance has been integral to getting them safely back on the road.

Assist Duration

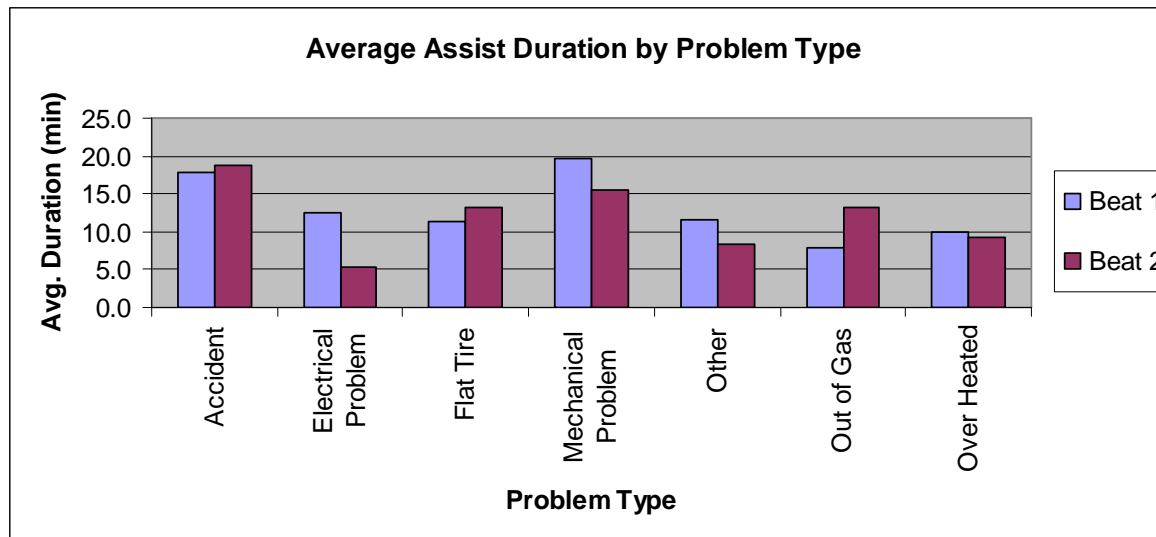
In general, repair times for Freeway Service Patrol drivers to address common vehicle breakdowns ranges from 10 – 20 minutes. The average duration that drivers spent on assists is 10.2 minutes. For the two most frequent causes of breakdowns-other breakdowns and overheated vehicles, an average of 9.1 minutes and 9.7 minutes were spent on the assists. Drivers spent the most time at accident scenes, an average of 18.4 minutes. Mechanical problems required the second longest assist time, an average of 17.5 minutes. More detailed data is shown in Figure 7 and 8. The average assist duration of our tow operators are lower than the state average, which is 12.7 minutes. The duration is comparable with the San Francisco Bay Area and San Joaquin County.

Data for Assist Durations

Figure 7: Average Repair Time (Fiscal Year 2006-2007)

Beat	Accident	Electrical Problem	Flat Tire	Mechanical Problem	Other	Out of Gas	Over Heated	Average Duration
1	17.8	12.4	11.3	19.7	11.5	7.8	10.1	10.3
2	18.8	5.3	13.3	15.5	8.2	13.2	9.4	10.1
Avg. Duration	18.4	11.7	11.9	17.5	9.1	10.0	9.7	10.2

Figure 8: Average Assist Duration (Fiscal Year 2006-2007)

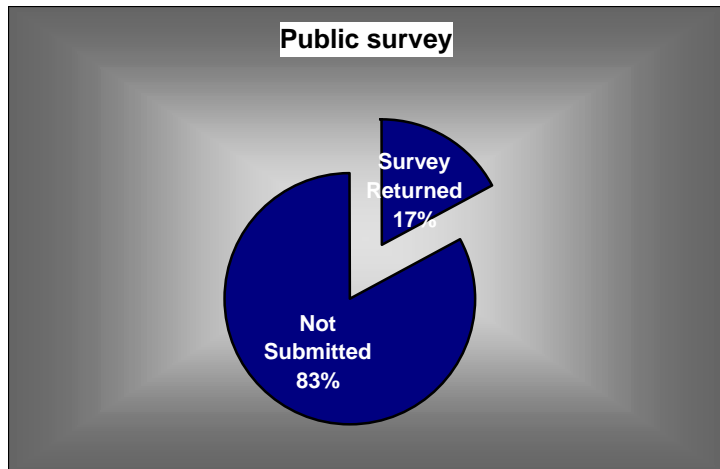


Public Opinion

With every motorist assist, the Freeway Service Patrol driver provides motorists with an opinion survey to provide feedback on his or her experience with the service.

For fiscal year 2006/2007, 327 public opinion surveys were

Figure 9: Public Survey (Fiscal Year 2006-2007)



returned to Transportation Agency for Monterey County. These survey responses indicated positive feedback on the overall program service. Ninety-five percent of respondents rated the service they received as “Excellent”; with three percent stating the service was “Good.”

When asked for ways that the program could be improved, 75% said the program required “No Improvement”, the remaining 25% was broken down as follows:

- Extended Hours (11%)
- Extended Coverage (8%)
- Additional Vehicle Drop-off Locations (3%)
- Quicker Response, Other (3%)

Wait Time

The time that motorists had to wait for Freeway Service Patrol driver to arrive is not necessarily correlated with their positive perceptions of the program as a whole.

According to Figure 10 and 11, the majority of motorists receiving assistance on Beat 1 responded that a Freeway Service Patrol driver arrived within 5 minutes of their vehicle

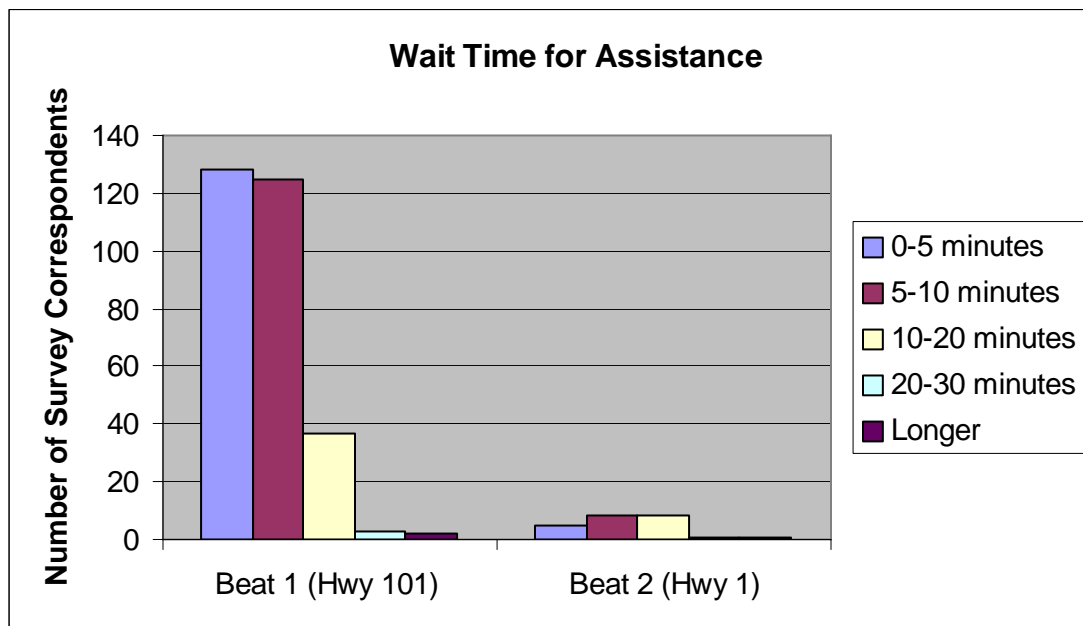
breaking down or after a phone call for assistance. The majority of drivers on Beat 2 responded that their wait times were similar, between 5 and 10 minutes.

Data for Wait Time

Figure 10: Wait Time for Assistance (Fiscal Year 2006-2007)

Wait time	0-5 minutes	5-10 minutes	10-20 minutes	20-30 minutes	Longer
Beat 1	128	125	37	3	2
Beat 2	5	8	8	1	1
Total	133	133	45	4	3

Figure 11: Wait Time for Assistance (Fiscal Year 2006-2007)



However, even motorists who waited longer, upwards of 10 – 20 minutes, still responded positively about the program. From this, it can be seen that while the prompt arrival of Freeway Service Patrol driver is integral to the effectiveness of the program, the service area covered, duration of repairs, hours of operation, and the numerous causes of breakdowns that a Freeway Service Patrol driver will attend to also play an important role in the formation of public opinion towards the program.

Knowledge of the program

The returned public opinion surveys indicated that 30% of motorists assisted had no prior knowledge of the program, which is an improvement from the 61% for calendar year

2005. The positive result reflects the effectiveness of the public awareness campaign conducted throughout the fiscal year. Outreach efforts included updating the Freeway Service Patrol program brochure and website, allowing the public to complete the survey online, providing “I was assisted by the Freeway Service Patrol” bumper stickers, making public service announcements on television and radio shows, and issuing news releases about the program. Twenty-five percent of the motorists who have returned survey indicated that they found out about the program through brochures, and another 28% either heard about this program through a friend or relative.

Freeway Service Patrol Cost-Benefit Analysis

The effectiveness of the Freeway Service Patrol program is evaluated using a benefit cost ratio developed by California Department of Transportation. The model takes into consideration the annual savings in incident delay, fuel consumption and air pollutant emissions by providing Freeway Service Patrol services. The savings are translated into benefits using monetary values for delay (\$10/hr) and fuel consumption (\$2/gal). The costs include the annual capital, operating and administrative costs for providing Freeway Service Patrol service. Freeway Service Patrol beat geometries, such as the number of lanes, presence of shoulders, traffic volumes, and the number of characteristics of assists are also important elements in the model.¹

The current Freeway Service Patrol program offers an essential public service by clearing the County's freeways of vehicle breakdowns, brush and debris, and other obstructions that lead to increased congestion. Statewide, for fiscal year 2006-2007, Freeway Service Patrol programs provided a benefit of over \$6 for each \$1 invested in the program, and helped to offset millions of vehicle congestion hours and reduce overall gas consumption. The Monterey County Freeway Service Patrol program, while receiving a relatively small amount of funding as compared to other county programs, is still capable of operating efficiently while fulfilling the program goals. The overall benefit cost ratio for the Monterey County Freeway Service Patrol program is 2.2, which indicates that the Monterey County tow truck program provides a benefit of \$2.2 for every \$1 invested in the program. This is a positive change from the calendar year 2005 benefit cost ratio, which states that the Monterey County Freeway Service Patrol provided a benefit of \$1 for every \$1 invested in the program. The increase in the cost-benefit ratio can be partially attributed to changes in reporting practices, including new paper logs to streamline the recording process and to ensure that drivers captured all assists, which further substantiates the value of the program.

¹ Draft California's Freeway Service Patrol Program Management Information System Annual Report Fiscal Year 2006/07, Page 3-1.

Plans for Future Improvements

Collection of Assist Data

In fiscal year 2006-2007, new paper logs were created to streamline the recording process and to ensure that drivers captured all assists. This modification, along with change in service route and increase in public outreach, led to overall improvement of the program, particularly shown in the enhanced program cost effectiveness. In order to continue improving the program performance and providing accurate program evaluation, staff recommended migrating from the existing paper recording system to a more reliable data recording technology in previous reports. Given the number of the Freeway Service Patrol beats, it seemed most appropriate to switch to a handheld computerized data entry system. Starting in spring of 2008, drivers of both beats will be furnished with Personal Digital Assistants (PDA) to aide with the collection of assist data. The PDA system will increase the data accuracy and efficiency of data recording. The next program goal is to research the possibility of installing GPS systems in the tow trucks to enable truck tracking and improve vehicle dispatching capabilities.

Extended Service Hours

There is a strong need to continue monitoring the program's usage levels and collecting feedback from the public. The public survey is a venue for the motoring public to tell us how well the program is performing and what improvements need to be made. Given that 11% of the surveys returned requested extended service hours, when future funding becomes available, the possibility of increasing service hours, such as Saturday services during the summer months, should be evaluated.