

Service Authority for Freeways and Expressways

Fiscal Year 2015-2016 Annual Report



**Prepared by
The Transportation Agency for Monterey County**



Executive Summary

The Service Authority for Freeway Emergencies motorist aid system in Monterey County has installed and oversees the operation of 190 call boxes on these major highways and County roads: State Route 1, State Route 68, State Route 156, US Highway 101, Jolon Road (G14, G18), and Carmel Valley/Arroyo Seco Roads. Since its inception in 1999, thousands of stranded motorists have received assistance through call boxes in Monterey County.

The program is self-funded, from a \$1 registration fee on each registered vehicle in Monterey County collected by the Department of Motor Vehicles, which generates approximately \$350,000 per year for Monterey County. The annual operating cost for fiscal year 2015-2016 was \$132,566. Remaining funding is used for periodic call box maintenance and upgrades, and other motorist aid services.

In fiscal year 2015-2016, a total of 850 calls were made, an average of approximately 71 calls per month. July showed the heaviest usage, while December had the fewest calls. Overall, there were slightly fewer total calls in fiscal year 2015-2016 than during 2014-2015, and considerably fewer than in fiscal year 2005-2006, when data was first collected. Modest increases in usage were seen along Highway 1, and Carmel Valley /Arroyo Seco Roads and Jolon Road (G18); while usage along Highway 156 and US 101 saw slight decreases. The average call delay during fiscal year 2015-2016 was approximately 11 seconds, which reflects good efficiency by the private operator. The Call Answering Center received over 50% of the calls during the afternoon and the evening periods, corresponding to peak travel periods. The answering center earned a service quality rating of 9 or above (out of 10 possible), based on courtesy, efficiency and other factors, for all twelve months of the year.

Although cell phone usage has reduced the need for call boxes in some locations, there remain areas with poor cell phone coverage that show high call box usage: The most frequently used call box is on Highway 1 at the Bixby Bridge. In the coming year, Agency staff will conduct a cost-effectiveness evaluation of the usage data and will present recommendations to the Board of

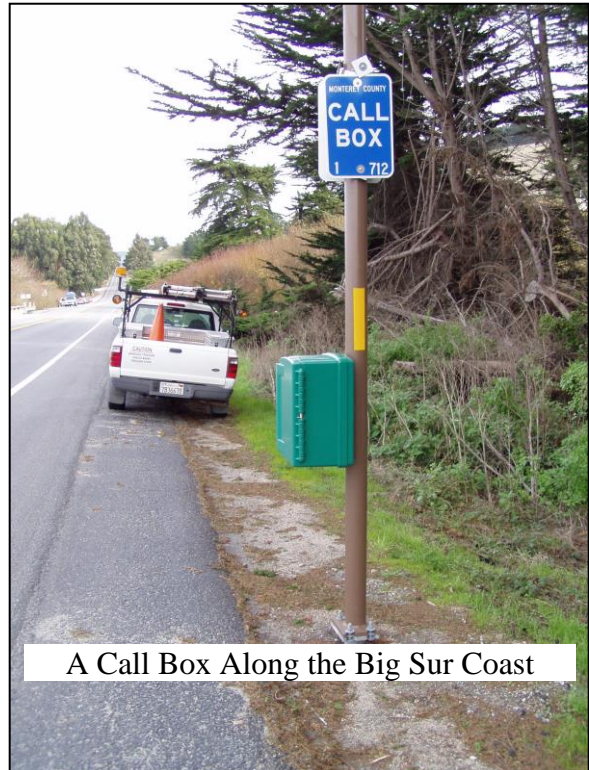
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Directors for potential call box removals and implementation of additional motorist aid services by winter of 2016.

Background

Purpose of Program

The Transportation Agency for Monterey County's Service Authority for Freeways and Expressways program provides free emergency telephone service to stranded motorists through call boxes. The program is a joint effort between California Department of Transportation, California Highway Patrol and the Transportation Agency. Agency staff oversees the daily operations and contracts of the program. The call boxes are directly linked to a call answering center where live operators dispatch the calls to the California Highway Patrol, tow truck, and/or emergency services.



A Call Box Along the Big Sur Coast

Currently, the call box program provides a system of 190 call boxes allowing motorists to request roadside assistance along the following routes: State Route 1, State Route 68, State Route 156, US Highway 101, Jolon Road (G14, G18), and Carmel Valley Road /Arroyo Seco Road. Since its inception in 1999, thousands of stranded motorists have received assistance through call boxes in Monterey County. The call boxes along Jolon Road and Carmel Valley/Arroyo Seco Roads were added in 2010 at the request of Monterey County Public Works and the South Monterey County Fire Protection District to enhance safety and provide emergency roadside assistance to motorists, given the lack of cellular networks in these areas. These locations include areas that have historically seen accidents and fires, and that have limited or no access to other forms of communication (such as pay phones and residential/commercial districts).

Maintenance Activities

In February 2014, the Transportation Agency entered a \$421,134, three-year maintenance and improvement contract with CASE Systems Inc. to ensure all call boxes are maintained and meet Americans with Disabilities Act (ADA) access requirements to accommodate persons in wheelchairs. Under this contract, CASE Systems Inc. is responsible for performing corrective maintenance on all call boxes, including making repairs associated with electronics, transceivers, power supply, and the interface with the cellular system, in addition to keeping call boxes clean and operational by conducting preventive maintenance field visits at least two times a year. While the contract also requires site improvements at the call boxes to improve accessibility for disabled motorists, this work has been put on hold pending a call box usage analysis planned for 2016-2017.

Previous Annual Reports

The Agency has baseline data from the program starting in fiscal year 2005/06, and has accurately tracked call box usage in a consistent manner over the past three years for year-to-year comparisons. Since 2005-2006, there has been a decline in usage, and call box usage has also shifted, with the majority of calls now coming from State Route 1, whereas US 101 had the highest usage in fiscal year 2005-2006.

Revenue Source

Funding for the program is from a \$1 registration fee on each registered vehicle in Monterey County collected by the Department of Motor Vehicles, which generates approximately \$350,000 per year for Monterey County. The annual operating cost for fiscal year 2015-2016 was \$132,566. In the past, revenues in excess of annual operating costs were utilized to pay the capital costs to acquire and install each new phase of call box equipment.

Usage Evaluation

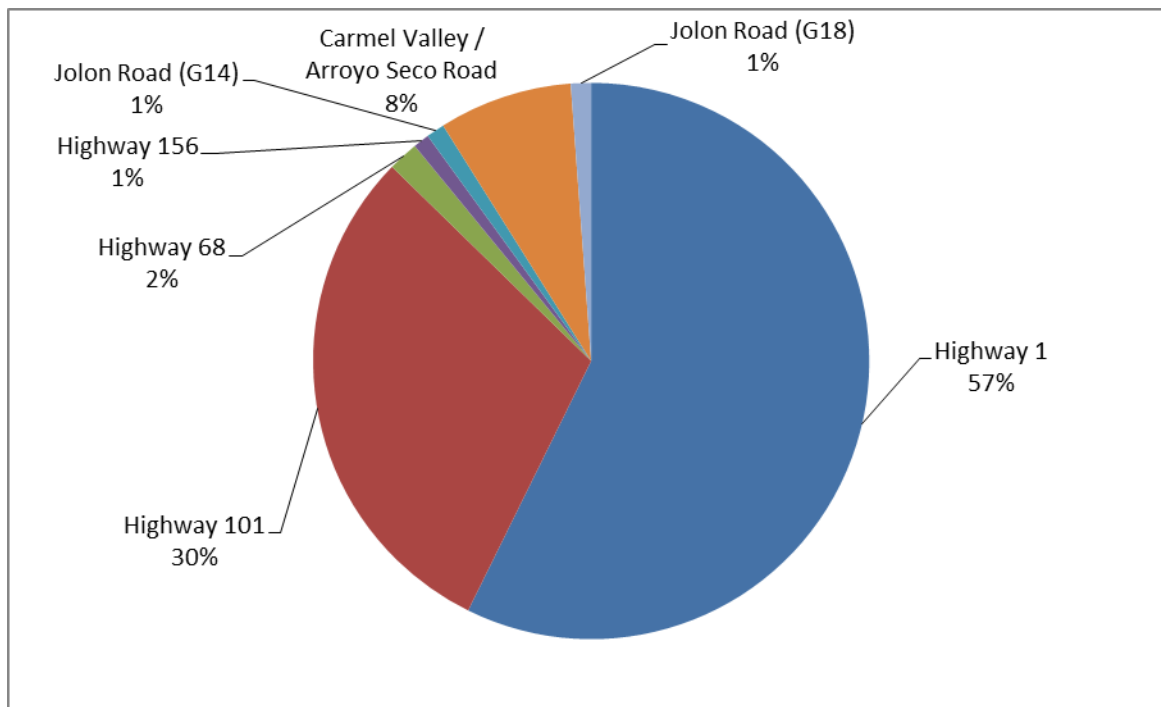
Consultants Keolis America Inc./CDS Net and T-Cubed provided data on call box usage for fiscal year 2015-2016, which allows the Agency to evaluate the program.

Calls by Roadway

In fiscal year 2015-2016, a total of 850 calls were made from the 190 call boxes in operation, making for an average of approximately 71 calls per month.

As shown in Figure 1, fifty-seven percent (57%) of total calls for aid came from boxes located on State Route 1. Thirty percent (30%) of total calls made were from call boxes along US 101, while call boxes along other routes make up for the balance of total calls.

Figure 1: Percentage of Call Box Calls by Route (Fiscal Year 2015-2016)



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Table 1 compares call box usage from fiscal year 2005-2006 to fiscal year 2015-2016. In 2005-2006 a total of 1,059 calls were made during the fiscal year, and seventy-five percent (75%) of total calls for aid came from boxes located on Highway 101.

Recent usage is generally lower than past usage, fewer total calls in the past two fiscal years than in 2005-2006. The greatest decline occurred along Highway 101, but there was an increase in usage along State Route 1. Also listed in Table 1 are calls from the newer call boxes along Jolon Road (G14), Carmel Valley/Arroyo Seco Roads, and Jolon Road (G18), which were added in 2010.

Table 1: Call Box Calls by Route, Year to Year Comparison

Highway	State Route 1	State Route 68	Highway 101	State Route 156	Jolon Road (G14)	Carmel Valley / Arroyo Seco Road	Jolon Road (G18)	Total
Number of Calls 2005-2006	209	49	793	8	N/A	N/A	N/A	1059
Number of Calls 2013-2014	419	37	285	7	5	52	8	813
Number of Calls 2014-2015	431	18	346	15	14	63	2	889
Number of Calls 2015-2016	487	15	255	8	9	66	10	850

N/A = not in operations yet

Top Call Box Usage

Table 2 lists the most used call boxes in Monterey County. During the fiscal year 2015-2016, eight call boxes were used for 20 or more calls, making them the most used call boxes in the system. Seven of the eight call boxes are located on Highway 1, while the other is on US 101. All of the call boxes with the highest call volumes in fiscal year 2015-2016 were located in areas of poor cell phone reception. The lack of good cell phone service, combined with their attractiveness for tourists, makes these prime locations for call box usage. This fact is exemplified by the busiest call box location, Bixby Bridge.

Table 2: Most Frequently Used Call Boxes (Fiscal Year 2015-2016)

Rank	Highway	Location	Number of Calls
1	1	Bixby Creek Bridge	93
2	1	Salmon Creek	59
3	1	Pacific Valley USFS	49
4	1	Garrapata Beach	46
5	1	Soberanes Point	45
6	1	The Dunes Shopping Center	36
7	1	Radio Point	31
8	101	Camp Roberts	28

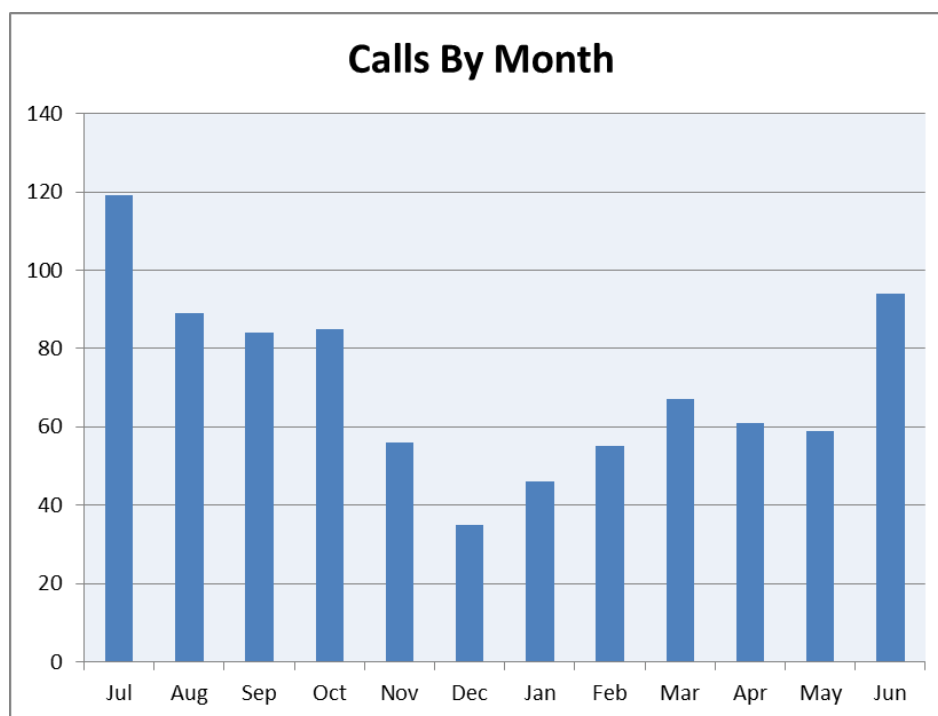
Calls by Month

The call box system in Monterey County averaged approximately 71 calls per month, although the number of calls ranged from a low of 35 to a high of 119 calls. In general, there is a sharp increase in call volume during summer travel months and a corresponding decline in the fall, with the lowest point in December.

Table 4: Call Box Calls by Month (Fiscal Year 2015-2016)

Month	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Total
Calls	119	89	84	85	56	35	46	55	67	61	59	94	850

Figure 2: Call Box Calls by Month (Fiscal Year 2015-2016)

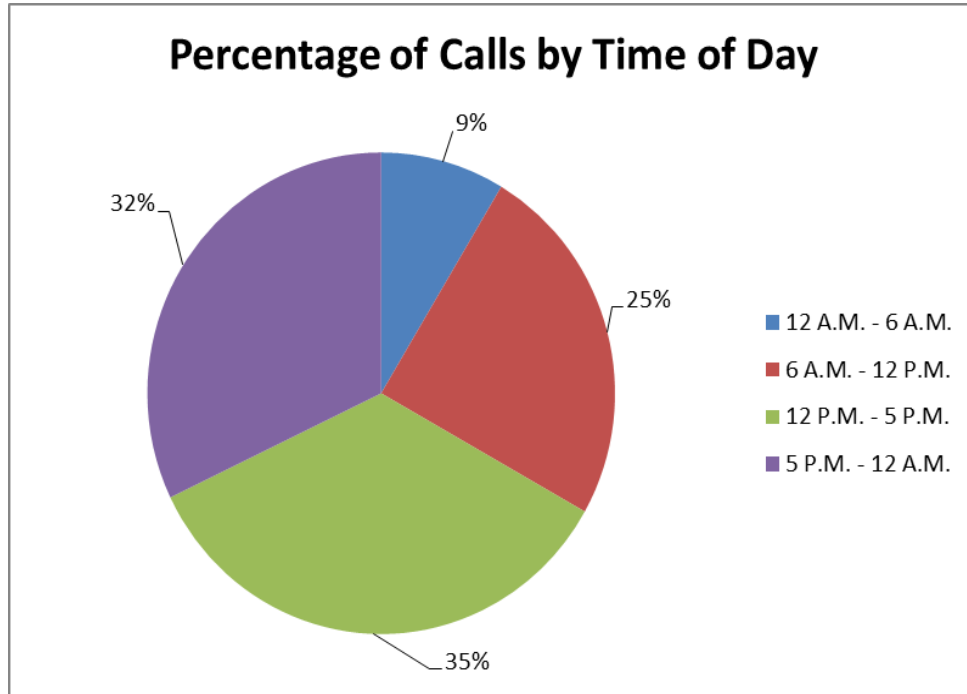


Calls by Time of Day

Knowledge of call times helps first responders and motorist assistance services, such as the California Highway Patrol and the Freeway Service Patrol, anticipate when motorists are likely to need assistance. For purpose of analysis, call box calls are grouped into four different time segments: late night/early morning (12 a.m.-6 a.m.), morning (6 a.m. to 12 p.m.), afternoon (12 p.m. to 5 p.m.), and evening (5 p.m. to 12 a.m.).

The Call Answering Center received the most calls during the afternoon period (35%), thirty-two percent (32%) during the evening, twenty-five percent (25%) in the morning, and nine percent (9%) of the total requests happened in the late night/early morning. The percentage of calls corresponds to the peak travel periods, as well as the expected drop in calls during the late night period when fewer travelers are on the roads.

Figure 3: Percentage of Call Box Calls by Time of Day (Fiscal Year 2015-2016)



Call Answering Center Service Level

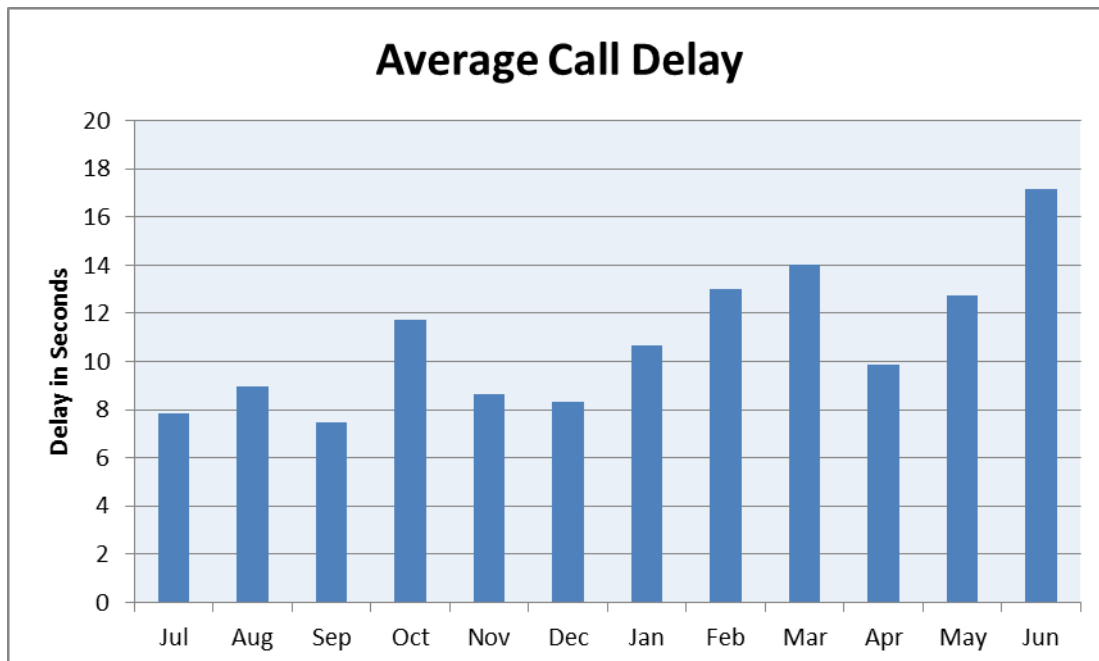
Routing

Call box calls were originally routed to and answered by the California Highway Patrol. In January of 2005, the Agency shifted the call answering service to a private call answering center to reduce costs, improve service, and increase reporting. In June 2016, following a competitive procurement process, the Agency approved a new three-year contract with Keolis America Inc./CDS Net to continue as the call box answering service. The new contract is in place until 2019, and includes an option for one renewal for an additional three years.

Wait Time

The answering delay fluctuates monthly based on factors such as call volumes, time period (peak vs. off-peak), and staffing. The average call delay during fiscal year 2015-2016 was approximately 11 seconds. On a monthly basis, the longest average call delay was 17 seconds, in the month of June 2016, while the shortest delays were in July and September, 2015. Overall, the private call answering center demonstrated great efficiency in handling call box calls and requests.

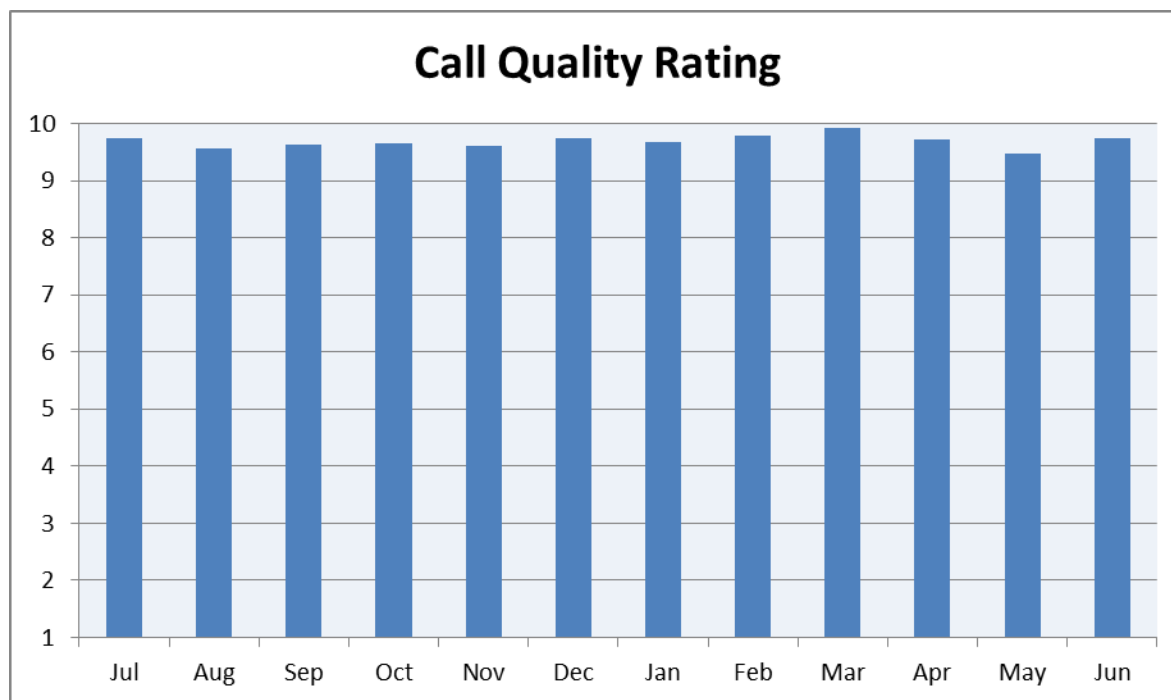
Figure 4: Average Call Delay by Month (Fiscal Year 2015-2016)



Answering Service Quality

Each month a portion of the calls received by the answering center are randomly selected by the answering center, reviewed, and rated based on items such as efficiency and courtesy using a scale of 1-10. For fiscal year 2015-16, the answering center for Monterey County call boxes earned a rating of 9 or above for all twelve months. Overall, the call answering center was able to respond to motorists' requests with a high quality of service throughout the year.

Figure 5: Answering Center Quality Rating by Month (Fiscal Year 2015-2016)



Next Steps

Going forward, the Transportation Agency will continue to track call box usage for year-to-year comparisons. Additionally, staff will continue to work on other motorist-aid programs, such as implementing the 511 traveler information system.

In the 2016-2017 year, the Agency will conduct a cost-effectiveness evaluation of the usage data and recommend opportunities to reduce the number of call boxes in Monterey County. As

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appropriate, this evaluation will likely recommend a shift in funding to other motorist aid activities. The Agency anticipates presenting to the Board of Directors and the public a plan for updating and improving the call box and motorist aid program by winter of 2016.