

Service Authority for Freeways and Expressways

Fiscal Year 2017-2018 Annual Report



Prepared by
The Transportation Agency for Monterey County



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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 2017-2018 was \$132,523. Remaining funding is used for periodic call box maintenance and upgrades, the local match for the Freeway Service Patrol, and other motorist aid services (the Go831 ridesharing and traveler information program).

In fiscal year 2017-2018, the total number of calls was 748, an average of approximately 62 calls per month. July showed the heaviest usage, while May had the fewest calls. The number of calls returned to what had been the average range of calls in recent years, following a significant decline in fiscal year 2016-2017. Fiscal year 2016-17 saw a dramatic drop in calls from State Route 1, corresponding to the record storm season for the Big Sur Coast, where there were frequent road closures during the winter and spring, culminating with a complete closure of State Route 1 from Pfeiffer Canyon Bridge in Big Sur to the San Luis Obispo County Line following the Pfeiffer Canyon Bridge failure.

In 2017, the Agency conducted a multi-year usage analysis to determine if reducing the size of the call box system was warranted. The analysis showed a considerable decline in usage along routes 101, 156, 68, and 1 north of Carmel. The decline corresponds to an increase in cell phone reception along these routes, as well as the continued proliferation of cell phone ownership. The analysis has been updated to include the 2017-2018 data, further confirming the identified usage trends. Based on this analysis, the Agency is working with Caltrans and the California Highway Patrol to finalize a Call Box Removal Plan for Monterey County.

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.



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 reception 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. The contract was renewed for an additional three years in 2017. Under this contract, CASE Systems Inc. is responsible for performing corrective maintenance on all call boxes. This work includes 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 the adoption of the Call Box Removal Plan.

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. A growing number of calls now come from call boxes on State Route 1. While calls from call boxes on US 101 continue to have the highest usage, the usage has declined substantially since 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 2017-2018 was \$132,523. 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, and currently these excess funds are being used as the local match for the Freeway Service Patrol and to support the Agency's Go831 Rideshare and Traveler Information program.

Usage Evaluation

Consultants Keolis America Inc./CDS Net and T-Cubed have provided data on call box usage for fiscal year 2017-2018, which allows the Agency to evaluate the program.

Calls by Roadway

In fiscal year 2017-2018, a total of 748 calls were made from the 190 call boxes in operation, an average of approximately 62 calls per month.

As shown in Figure 1, forty-one percent (41%) of total calls for aid came from boxes located on State Route 1. Forty-eight percent (48%) 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 2017-2018)

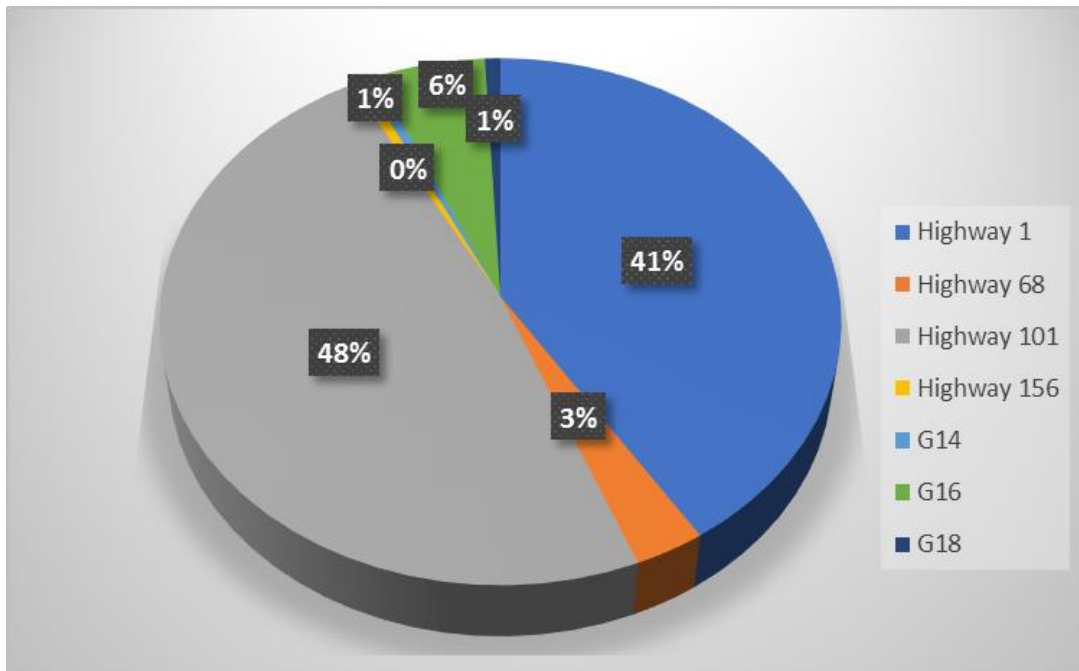
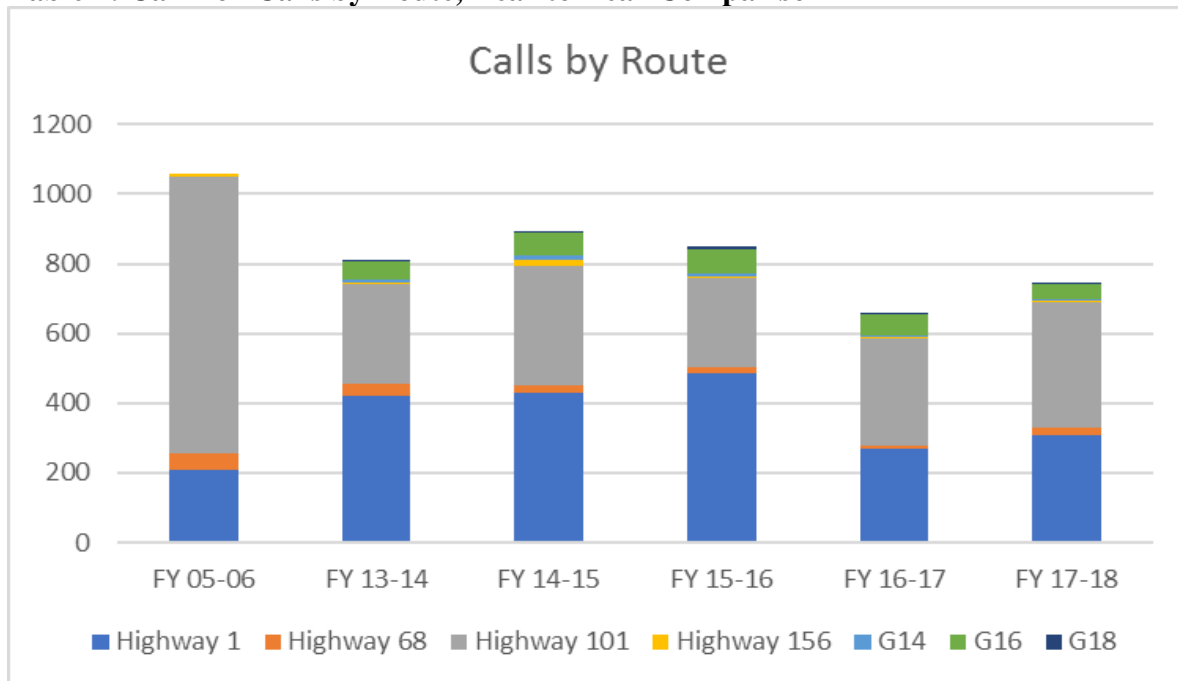


Table 1 compares call box usage from fiscal year 2005-2006 to fiscal year 2017-2018. In 2005-2006 a total of 1,059 calls were made during the fiscal year, and seventy-five percent (75%) of total calls for aid came from boxes located on Highway 101.

Recent usage is generally lower than past usage; specifically, there have been fewer total calls in the past two fiscal years than in 2005-2006. From 2005 to 2018, the greatest decline in usage 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 – Lockwood to King City), Carmel Valley/Arroyo Seco Roads (G16), and Jolon Road (G18- Bradley - Lockwood), which were added in 2010.

In 2016-17, calls from State Route 1 declined by approximately 46%. The decline in usage corresponded to the record storm season for the Big Sur Coast, where there were frequent road closures during the winter, culminating with a complete closure of State Route 1 from Pfeiffer Canyon Bridge in Big Sur to the San Luis Obispo County Line. The decline in usage for State Route 1 continued into the fiscal year 2017-18 as State Route 1 was not completely reopened until July of 2018.

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



Top Call Box Usage

Table 2 lists the most-used call boxes in Monterey County. During the fiscal year 2017-2018, five call boxes were used for 20 or more calls, making them the most-used call boxes in the system. All of the five call boxes are located on Highway 1, and all of the call boxes with the highest call volumes in fiscal year 2017-2018 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, Pacific Valley.

Table 2: Most Frequently Used Call Boxes (Fiscal Year 2017-2018)

Rank	Highway	Location	Number of Calls
1	1	Pacific Valley	63
2	1	Garrapata Beach	54
3	1	Salmon Creek	32
4	1	Bixby Creek Bridge	30
5	1	Soberanes Point	28

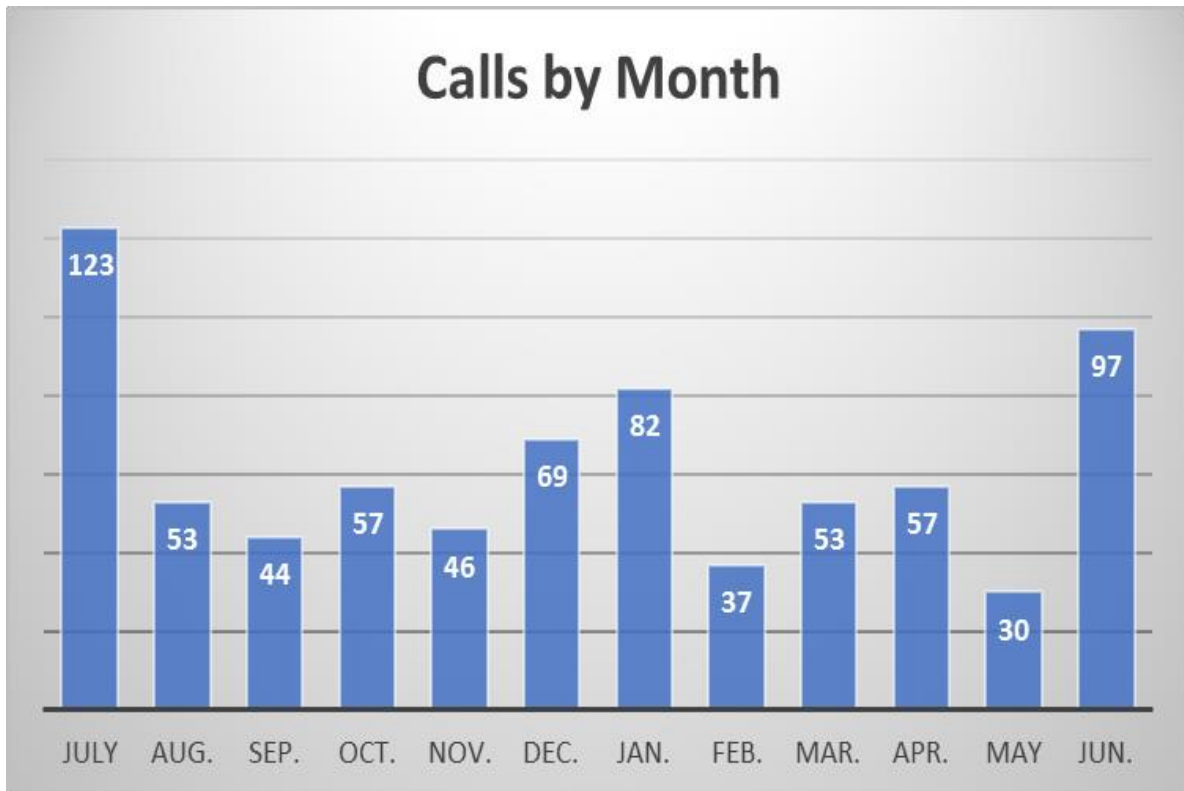
Calls by Month

The call box system in Monterey County averaged approximately 48 calls per month, although the number of calls ranged from a low of 30 to a high of 123 calls. Similar to last fiscal year, there was not a seasonal decline in winter, which saw average and even above average call rates compared to prior year winter averages.

Table 4: Call Box Calls by Month (Fiscal Year 2017-2018)

Month	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Total
Calls	123	53	44	57	46	69	82	37	53	57	30	97	748

Figure 2: Call Box Calls by Month (Fiscal Year 2017-2018)

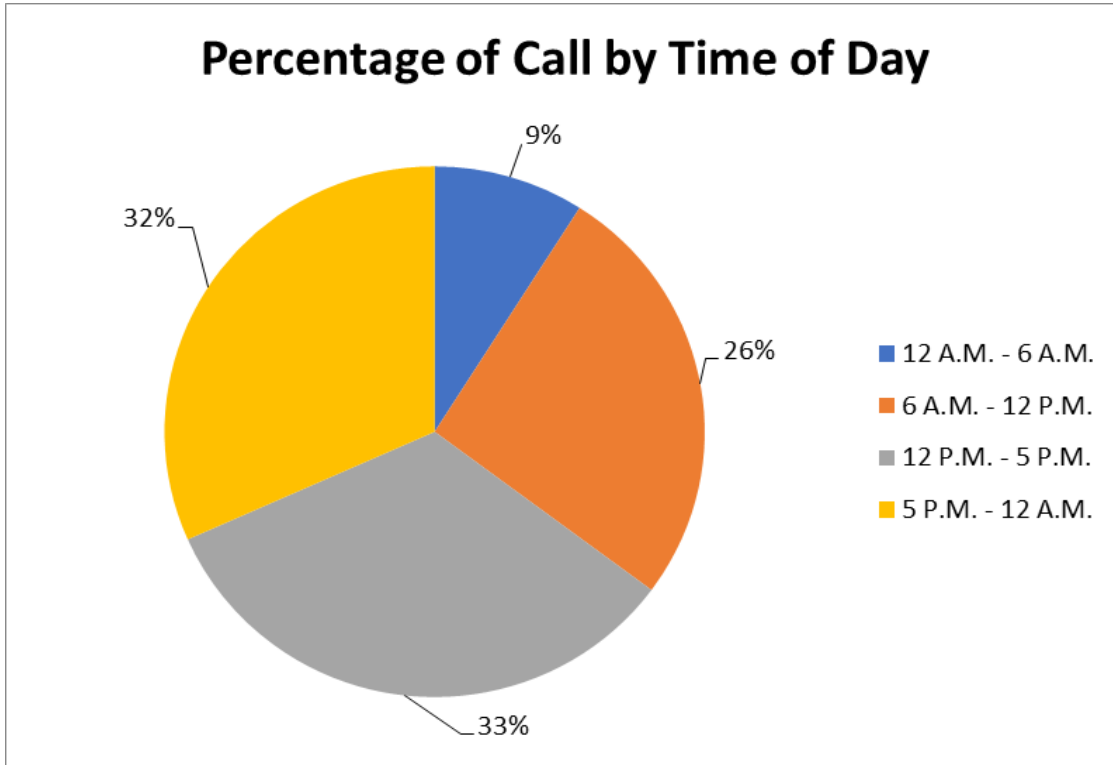


Calls by Time of Day

Knowledge of call times helps first responders and motorist assistance services, such as the California Highway Patrol and the Freeway Service Patrol, to 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 (33%), thirty-two percent (32%) during the evening, twenty-five percent (26%) 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, so there is an expected drop in calls during the late night/early morning period when fewer travelers are on the roads.

Figure 3: Percentage of Call Box Calls by Time of Day (Fiscal Year 2017-2018)



Call Answering Center Service Level

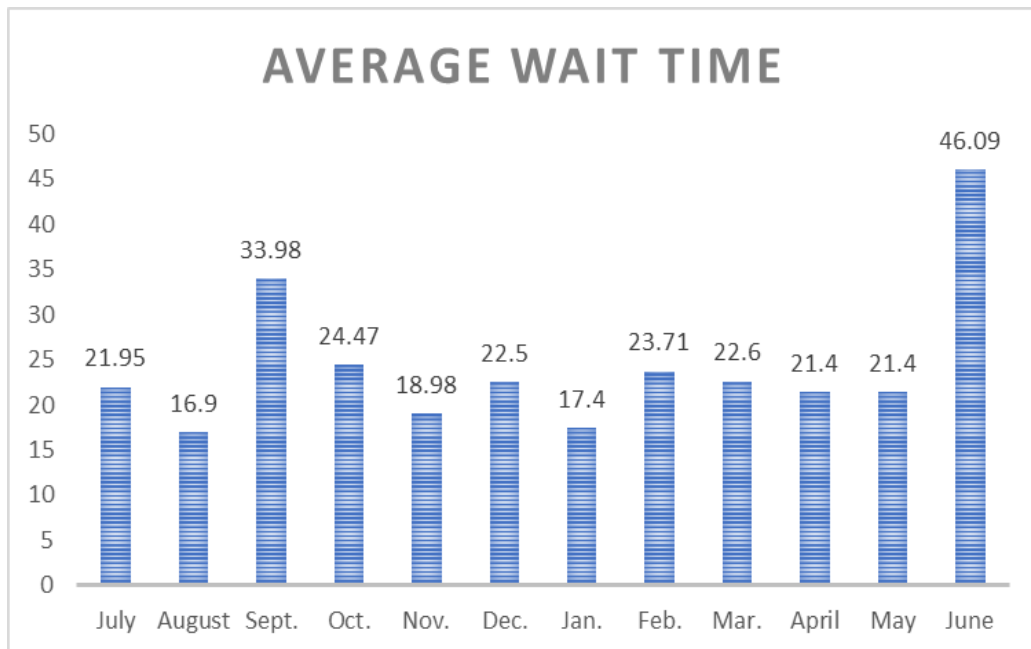
Routing

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 2017-2018 was approximately 24 seconds. On a monthly basis, the longest average call delay was 46 seconds, in the month of May, while the shortest delay was in August and February. Excluding the month of May, which was an aberration, the call answering center performed within an acceptable level of delay.

Figure 4: Average Call Delay by Month (Fiscal Year 2017-2018)



Answering Service Quality

Each month a portion of the calls received by the answering center are randomly selected, reviewed, and rated by the answering center based on evaluation criteria including efficiency and courtesy, using a scale of 1-10. For fiscal year 2017-18, the answering center for Monterey County call boxes earned a rating of 10, or “excellent service”, for all twelve months. Overall, the call answering center responded to motorists’ requests with a high quality of service throughout the year.

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 Go831 Ridesharing and Traveler Information System.

In 2017, the Agency conducted a multi-year usage analysis to determine if reducing the size of the call box system was warranted. The analysis showed a considerable decline in usage along routes 101, 156, 68, and 1 north of Carmel. The decline corresponds to an increase in cell phone reception along these routes, as well as the continued proliferation of cell phone ownership. The analysis has been updated to include the 2017-2018 data, further confirming the identified usage trends.

Corridors under consideration for call box removal include US 101, SR 156, SR 68, and SR 1 between Carmel and the Santa Cruz County line. Call boxes under consideration to remain active include those along SR 1 south of Carmel, Jolon Road, Carmel Valley Road, and Arroyo Seco Road. The recommended removal strategy maintains call boxes in poor cell phone service areas, and along corridors with a high number of incidents over the last five years.

Based on this analysis, the Agency is working with Caltrans and the California Highway Patrol to finalize a Call Box Removal Plan for Monterey County, as required by the statewide call box program guidelines.