

Chronology of Defect/Noncompliance Determination

In October 2019, MBAG launched an initial investigation based on a report from the Mercedes-Benz eCall center of a single instance in the European market where the automatic eCall system relayed an inaccurate vehicle position. Following the report, the behavior of the eCall function was analyzed to understand why an inaccurate vehicle position was relayed. MBAG reviewed its data and found that it had no record of similar behavior of the eCall system during any of its internal testing, including during vehicle crash tests in various scenarios. MBAG began to work closely with the supplier in different test environments and tried to replicate and understand the event. In depth analysis of the potential behavior of the power supply and the communication module eventually found how the software design of the communication module affected the relay of location information for the single European case.

In July 2020, MBAG's After-Sales department became aware of the issue and continued the analysis. MBAG's analysis focused on whether other vehicles in the field equipped with eCall functionality could experience a similar scenario.

In September 2020 different power supply technologies were compared to understand which vehicles in the field might also potentially experience similar behavior of the eCall location services. Since the eCall system is installed in multiple vehicle platforms and models, each with differing vehicle architecture, including the location and layouts for the installation of the electrical wiring harnesses and battery, the analysis was focused on these physical differences as well as the effect of crash dynamics on the behavior of the automatic eCall system.

In October 2020 the relevance of the behavior for different hardware and software combinations of the communication module began to be analyzed. This effort lasted into January 2021 along with a detailed review of accident research data from the German market. That research indicated additional similar events where the vehicle position transmitted by the eCall system was incorrect.

On January 29, 2021, MBAG determined that a safety risk cannot be ruled out.