

CARBON MONOXIDE DETECTION

PILOT SURVEY SUMMARY Q4: JUNE - AUGUST 2022

This is the fourth and final quarter report for the year-long trial investigating how CO detectors with attention-getting capabilities (so called 'active detectors') perform in general aviation. The fourth quarter covered the summer period.

A big thanks to all participants for sticking with the monthly surveys over the last 12 months!



The average survey response rate for the final quarter was **63%**, which was slightly lower than previous quarters



Flying activity

- 51%** of participants flew 1-5 times a month with their detector in Q4
- 24%** flew 6-10 times a month
- 15%** flew 11-30 times a month
- 3%** flew 31-50 times a month
- 1%** flew 51+ times a month
- 6%** did not fly with their detector in Q4



Total Number of CO Alerts

- 90%** of respondents reported no CO alerts in Q4
- 8%** reported 1-5 alerts and
- 2%** reported more than 5 alerts in Q4



CO Alerts and Aircraft Age

The correlation between CO alerts and aircraft age for Q4 is as follows:

Aircraft age (years)	Proportion of CO alerts
41+	50%
31-40	25%
21-30	0%
11-20	19%
0-10	6%



CO Occurrences

We received approximately **26** descriptions of CO occurrences in Q4, not all of which resulted in an alert.

About **60% of the described occurrences took place on the ground**

(e.g. start-up, taxi, power checks).



CO Peak Readings

About **43%** of participants recorded a peak reading of zero parts per million (ppm) in Q4.

Approximately **38%** of participants recorded a peak CO reading of less than 50 ppm.

Only **1%** recorded a peak CO reading between 51-100 ppm.

There were **no reports** of CO readings exceeding 100 ppm in Q4.



CO Detector Safety Issues

The vast majority (**89%**) of respondents reported no safety issues caused by their active CO detector whilst flying in Q4.

There were a small number of reports relating to inaudibility of the alarm (**3.5%**) and loose article risk (**3.5%**).

Additionally, there were two reports of a CO detector overheating.



Q4 Notable Observations

Some participants have updated their checklists to include turning on their CO detector pre-flight and turning it off post-flight.

Some participants have expressed frustration with how quickly their CO detector consumes batteries.

There are devices available with long battery lives - up to 10 years. Pilots are encouraged to shop around and speak with other pilots to find a device that best suits their needs e.g. battery life, audibility, size.



Now that the data gathering period has ended, we're working on compiling the final report to summarise the findings from the 12-month trial. The report will be published on the CO webpage later this month.

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