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Supplement of

Improvements of a low-cost CO_2 commercial nondispersive near-infrared (NDIR) sensor for unmanned aerial vehicle (UAV) atmospheric mapping applications

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Figures and pictures

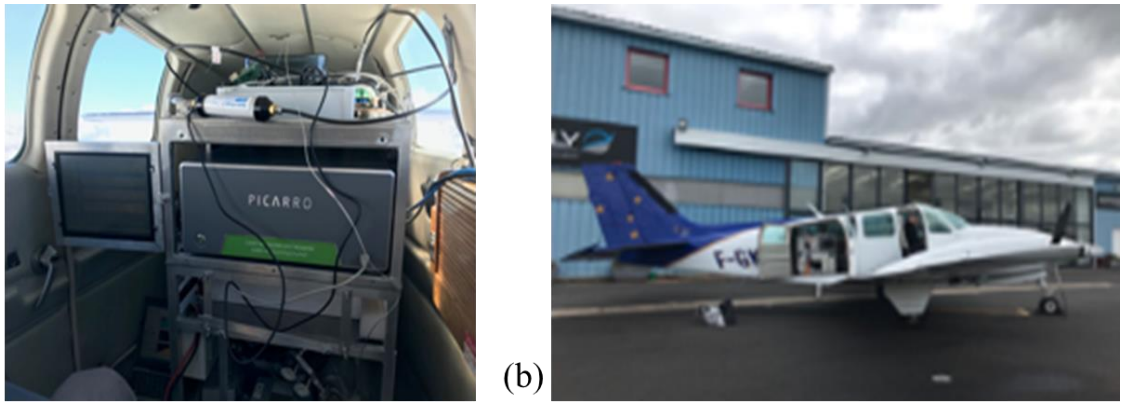

Figure S1 the setup of the system onboard a small aircraft (a) and the manned aircraft platform Beechcraft Baron 58 (b).

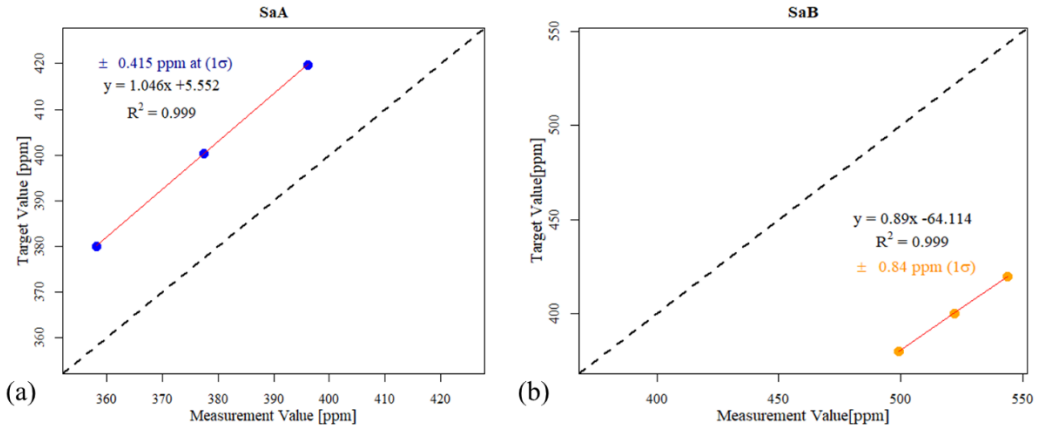

Figure S2 Calibration linear fits calculated for SaA (a) and SaB (b).

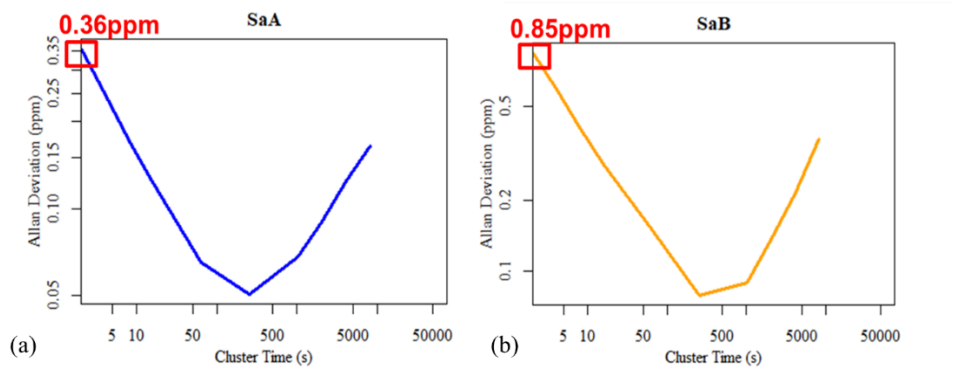

Figure S3 Allan deviation test results for SaA (a) and SaB (b).

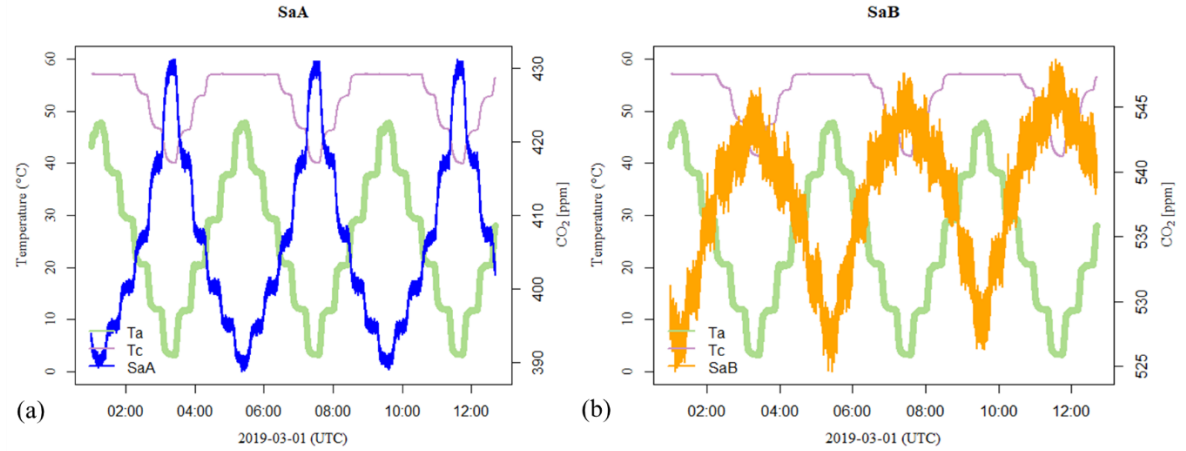

Figure S4 Temperature sensitivity test diagrams, (a) shows the time series of chamber temperature, the sensor cell temperature of SaA and CO_2 readings from SaA; (b) shows the time series of chamber temperature, the sensor cell temperature of SaB and CO_2 readings from SaB.

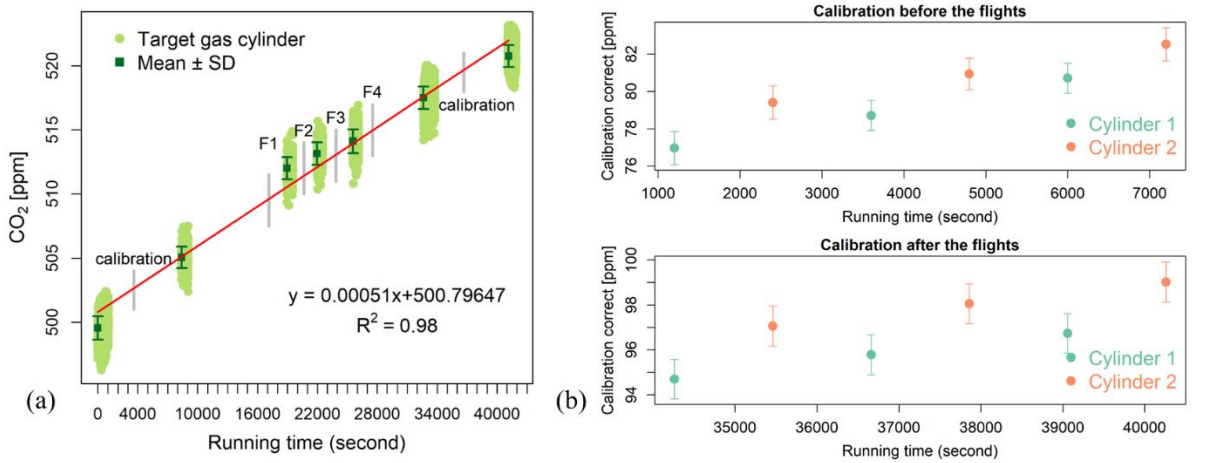

Figure S5 (a) the evolution of target cylinder measurements for SaB and the red line is the linear regression of CO_2 (ppm) against time; (b) presents the calibrations before and after the flights.