## TransCom 3 carbon flux inversion using aircraft CO<sub>2</sub> profiles: initial results

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We have used 15 TransCom 3 models to do carbon flux inversions from both surface  $CO_2$  observations and aircraft  $CO_2$  profiles. The results show that, when the prior carbon flux constraints are loosened, including aircraft  $CO_2$  profiles in inversions increases the Northern carbon sink compared with surface-only inversions.