## $\Delta XCO_2$ (Land)

| Month | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | | -0.4 | -0.4 | -0.3 | -0.4 | -0.3 | | -0.2 | -0.2 | -0.1 | -0.0 | 0.1 | -0.0 |
| Feb | | -0.4 | -0.5 | -0.2 | -0.4 | -0.3 | -0.3 | -0.3 | -0.0 | 0.1 | 0.1 | 0.1 | -0.0 |
| Mar | | -0.2 | -0.3 | -0.2 | -0.5 | -0.1 | -0.1 | -0.1 | 0.1 | -0.2 | 0.2 | 0.2 | 0.1 |
| Apr | 0.2 | -0.1 | -0.4 | -0.4 | -0.4 | -0.2 | -0.1 | -0.1 | -0.0 | 0.0 | 0.1 | 0.2 | 0.2 |
| May | 0.1 | -0.3 | -0.4 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 | -0.1 | -0.1 | -0.0 |
| Jun | -0.2 | -0.5 | -0.6 | -0.6 | -0.6 | -0.4 | -0.4 | -0.3 | -0.3 | -0.2 | -0.2 | -0.1 | -0.1 |
| Jul | -0.2 | -0.6 | -0.6 | -0.6 | -0.5 | -0.5 | -0.4 | -0.4 | -0.3 | -0.2 | -0.3 | -0.2 | -0.2 |
| Aug | -0.3 | -0.6 | -0.6 | -0.6 | -0.6 | -0.5 | -0.4 | -0.4 | -0.4 | -0.2 | -0.2 | -0.2 | -0.2 |
| Sep | -0.2 | -0.6 | -0.7 | -0.6 | -0.7 | -0.4 | -0.3 | -0.3 | -0.3 | -0.1 | -0.2 | -0.2 | -0.1 |
| Oct | -0.2 | -0.5 | -0.5 | -0.6 | -0.5 | -0.4 | -0.3 | -0.3 | -0.2 | -0.0 | -0.0 | -0.2 | -0.0 |
| Nov | -0.2 | -0.5 | -0.5 | -0.5 | -0.4 | -0.4 | -0.3 | -0.2 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 |
| Dec | -0.3 | -0.6 | -0.5 | -0.5 | -0.3 | -0.4 | -0.2 | -0.3 | -0.1 | 0.1 | -0.0 | -0.0 | 0.0 |

Year

## $\Delta XCO_2$ (Ocean)

| Month | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | | -5.4 | -5.1 | -4.9 | -5.0 | -4.6 | | -4.3 | -4.2 | -4.1 | -4.0 | -3.8 | -3.9 |
| Feb | | -5.4 | -5.0 | -4.9 | -4.6 | -4.6 | -4.4 | -4.2 | -4.0 | -3.8 | -3.8 | -3.7 | -3.8 |
| Mar | | -5.5 | -5.1 | -5.2 | -4.8 | -4.3 | -4.2 | -3.9 | -3.9 | -3.6 | -3.7 | -3.4 | -3.5 |
| Apr | -5.2 | -5.9 | -5.4 | -5.2 | -4.9 | -4.6 | -4.5 | -4.2 | -3.8 | -3.5 | -3.5 | -3.4 | -3.5 |
| May | -5.4 | -5.8 | -5.5 | -5.1 | -4.9 | -4.6 | -4.7 | -4.2 | -4.1 | -4.0 | -3.7 | -3.8 | -3.8 |
| Jun | -5.5 | -5.7 | -5.4 | -5.3 | -5.0 | -5.2 | -4.8 | -4.3 | -4.1 | -3.9 | -4.0 | -4.7 | -3.9 |
| Jul | -5.6 | -5.9 | -5.5 | -5.2 | -5.0 | -4.7 | -4.8 | -4.1 | -4.1 | -4.3 | -3.9 | -3.9 | -3.9 |
| Aug | -5.3 | -5.4 | -5.5 | -5.2 | -4.7 | -4.7 | -4.5 | -4.0 | -3.9 | -4.3 | -3.9 | -3.6 | -3.7 |
| Sep | -5.0 | -5.2 | -5.1 | -5.0 | -4.6 | -4.7 | -4.4 | -4.0 | -3.8 | -3.7 | -3.6 | -3.6 | -3.7 |
| Oct | -5.0 | -5.0 | -4.9 | -4.8 | -4.6 | -4.6 | -4.2 | -4.0 | -3.7 | -3.5 | -3.4 | -3.5 | -3.5 |
| Nov | -4.9 | -5.0 | -4.8 | -4.9 | -4.5 | -4.5 | -4.3 | -4.0 | -3.7 | -3.6 | -3.6 | -3.5 | -3.6 |
| Dec | -5.1 | -4.9 | -4.9 | -4.9 | -4.7 | -4.5 | -4.3 | -4.1 | -4.0 | -4.4 | -3.7 | -3.8 | -3.8 |

Year

## $\Delta XCH_4$ (Land)

| Month | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | | -8.5 | -8.7 | -7.6 | -8.7 | -8.4 | | -7.8 | -7.1 | -6.5 | -6.1 | -6.1 | -6.5 |
| Feb | | -8.7 | -8.6 | -6.9 | -8.1 | -7.9 | -8.0 | -7.6 | -6.2 | -5.9 | -6.1 | -6.1 | -6.3 |
| Mar | | -7.3 | -7.6 | -7.1 | -8.7 | -6.9 | -6.8 | -6.7 | -5.7 | -7.3 | -4.8 | -5.2 | -5.2 |
| Apr | -6.4 | -7.2 | -8.1 | -8.4 | -9.0 | -7.4 | -6.5 | -7.0 | -6.4 | -6.2 | -5.9 | -5.6 | -5.0 |
| May | -6.6 | -8.6 | -8.7 | -9.1 | -8.5 | -8.8 | -7.9 | -7.9 | -7.6 | -6.9 | -7.2 | -7.2 | -7.1 |
| Jun | -7.8 | -9.5 | -9.5 | -9.9 | -9.3 | -9.1 | -8.7 | -8.5 | -8.0 | -7.8 | -8.1 | -7.6 | -7.4 |
| Jul | -8.1 | -10.0 | -9.8 | -9.8 | -9.8 | -9.2 | -8.9 | -9.0 | -8.4 | -7.9 | -8.0 | -7.8 | -8.0 |
| Aug | -8.9 | -10.0 | -10.3 | -10.4 | -10.0 | -9.6 | -9.1 | -9.0 | -8.9 | -7.5 | -7.7 | -8.4 | -8.1 |
| Sep | -8.4 | -10.3 | -10.4 | -10.3 | -10.3 | -9.3 | -8.6 | -8.7 | -8.5 | -7.2 | -7.9 | -8.1 | -7.3 |
| Oct | -7.4 | -9.7 | -9.1 | -10.2 | -9.4 | -8.8 | -8.5 | -8.2 | -7.1 | -6.7 | -6.9 | -7.4 | -6.1 |
| Nov | -7.9 | -9.0 | -9.3 | -9.8 | -8.8 | -8.8 | -8.1 | -7.9 | -6.6 | -7.1 | -7.2 | -7.3 | -6.8 |
| Dec | -8.3 | -9.2 | -8.8 | -9.5 | -8.3 | -9.4 | -7.7 | -8.2 | -6.7 | -6.3 | -6.8 | -7.3 | -6.5 |

Year

## $\Delta XCH_4$ (Ocean)

| Month | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | | -9.0 | -10.1 | -10.9 | -10.7 | -10.4 | | -5.4 | -5.8 | -5.1 | -4.6 | -4.8 | -6.3 |
| Feb | | -10.9 | -11.7 | -11.9 | -11.9 | -11.3 | -8.9 | -6.9 | -6.8 | -5.6 | -5.1 | -4.7 | -6.7 |
| Mar | | -12.2 | -12.9 | -13.8 | -13.2 | -12.2 | -8.3 | -7.7 | -7.1 | -6.4 | -5.4 | -5.9 | -6.8 |
| Apr | -9.2 | -12.9 | -14.3 | -14.1 | -14.0 | -12.2 | -9.0 | -8.5 | -6.6 | -4.9 | -6.5 | -6.1 | -6.7 |
| May | -9.6 | -13.4 | -14.1 | -14.2 | -13.5 | -11.9 | -9.0 | -8.5 | -7.1 | -5.7 | -6.4 | -6.7 | -7.3 |
| Jun | -10.4 | -13.5 | -14.0 | -14.3 | -13.8 | -12.5 | -9.9 | -8.0 | -7.1 | -5.5 | -6.1 | -9.2 | -7.8 |
| Jul | -12.3 | -14.7 | -14.6 | -14.7 | -14.1 | -12.8 | -10.4 | -7.7 | -6.4 | -6.6 | -5.8 | -6.8 | -7.1 |
| Aug | -10.6 | -14.1 | -14.2 | -14.2 | -12.7 | -11.1 | -8.6 | -7.2 | -6.5 | -6.6 | -5.6 | -6.2 | -6.8 |
| Sep | -9.3 | -12.3 | -12.7 | -13.0 | -11.9 | -10.1 | -7.9 | -7.6 | -6.6 | -5.3 | -5.5 | -6.8 | -7.1 |
| Oct | -8.3 | -11.9 | -11.2 | -11.2 | -11.1 | -8.8 | -7.5 | -7.6 | -6.6 | -5.0 | -5.2 | -6.6 | -7.1 |
| Nov | -7.5 | -10.2 | -10.1 | -9.4 | -10.0 | -8.2 | -6.3 | -6.6 | -5.6 | -4.9 | -5.0 | -6.9 | -6.9 |
| Dec | -6.9 | -9.6 | -9.8 | -9.6 | -7.9 | -8.1 | -6.2 | -6.4 | -5.3 | -4.8 | -5.2 | -6.2 | -6.7 |

Year