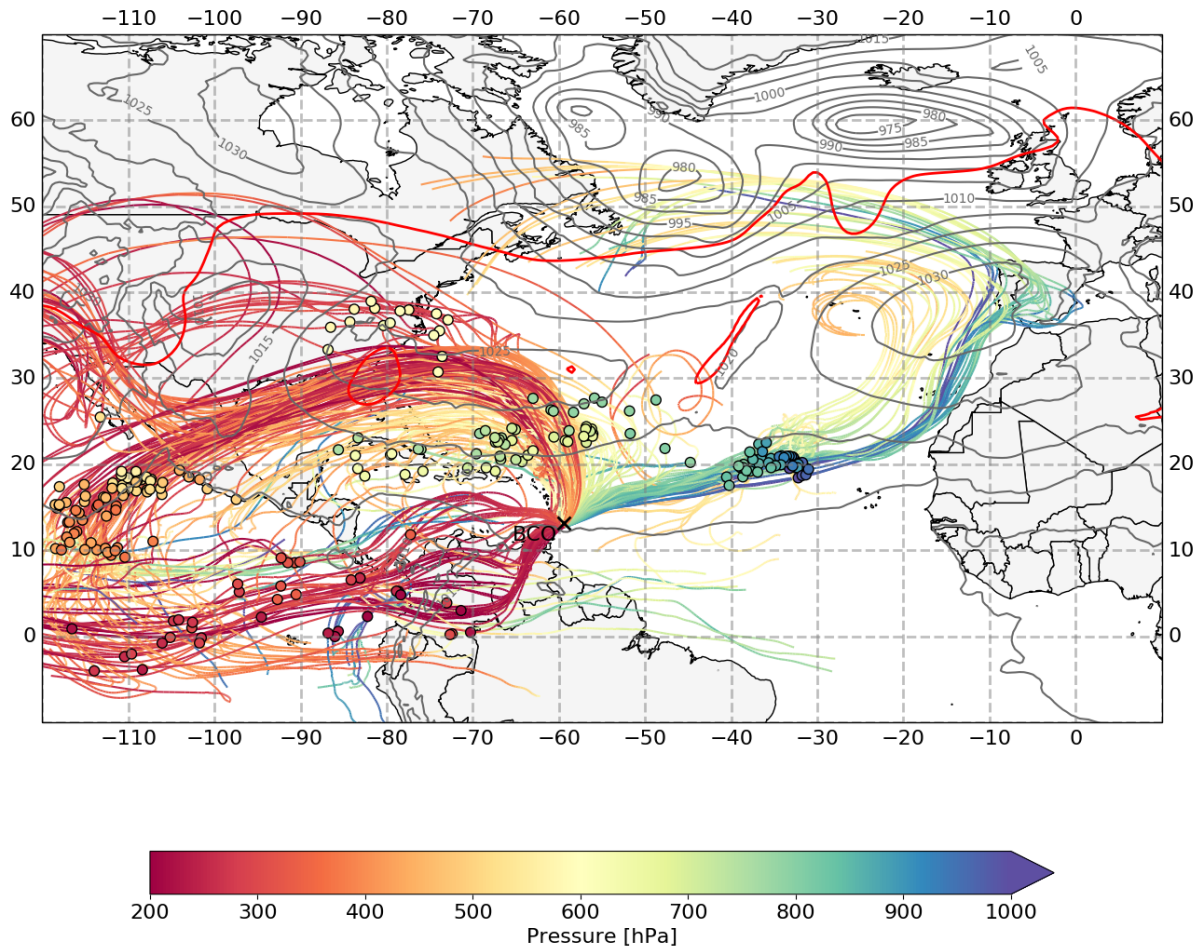


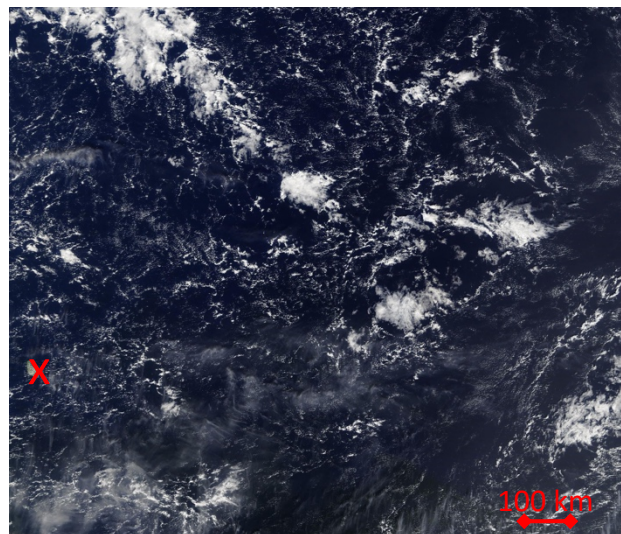
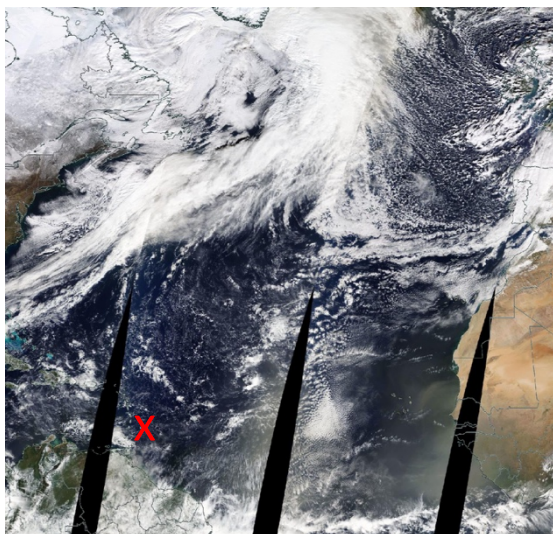
This supplementary document provides all trajectory plots during the isoTrades pre-EUREC⁴A 2018 campaign for 15 UTC corresponding to shortly after the time of the passage of the NASA TERRA satellite over Barbados (1030 local time, 1430 UTC) together with two MODIS images of the cloud cover over the North Atlantic.

Arrival on 20180125_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180121_15

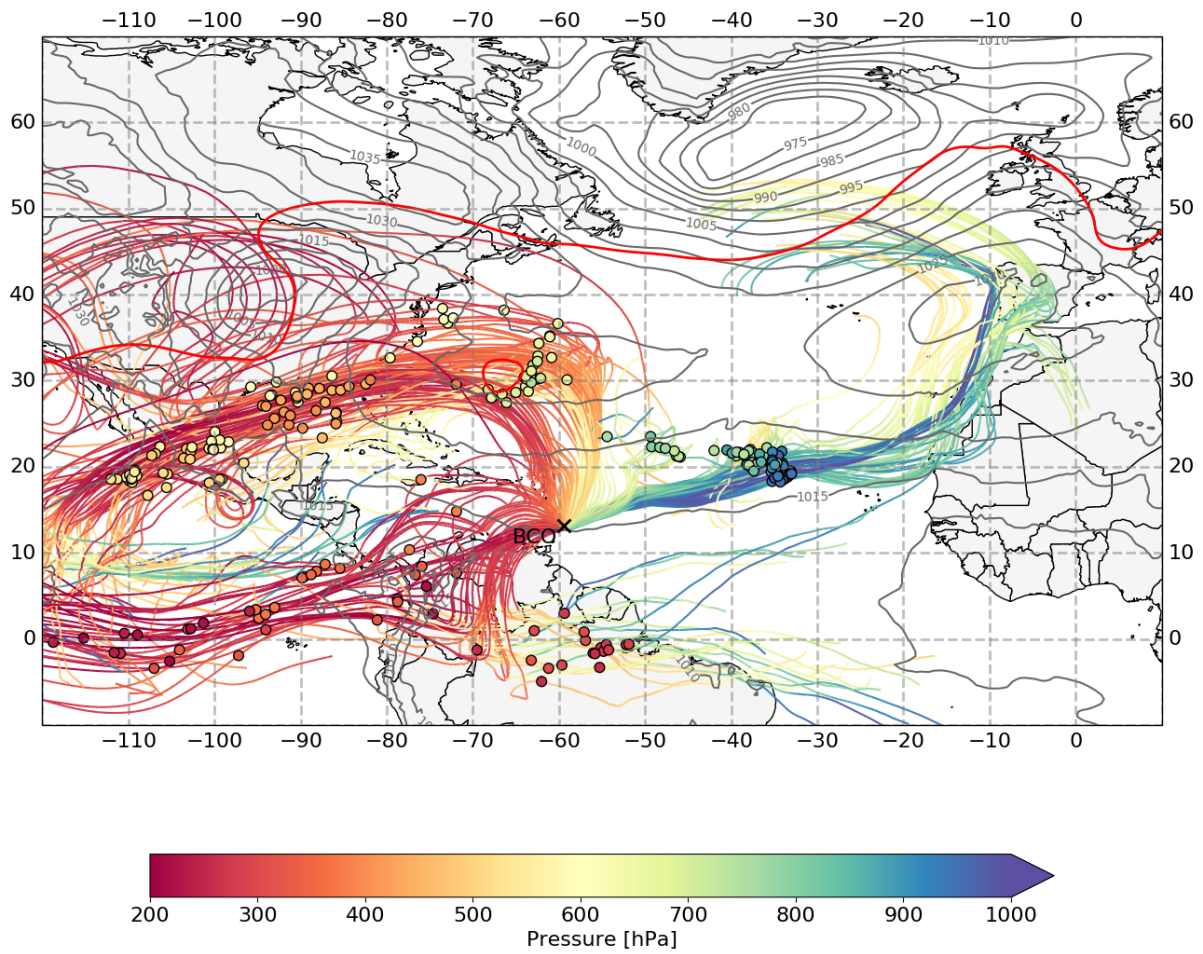


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $38 \text{ hPa (4 days)}^{-1}$

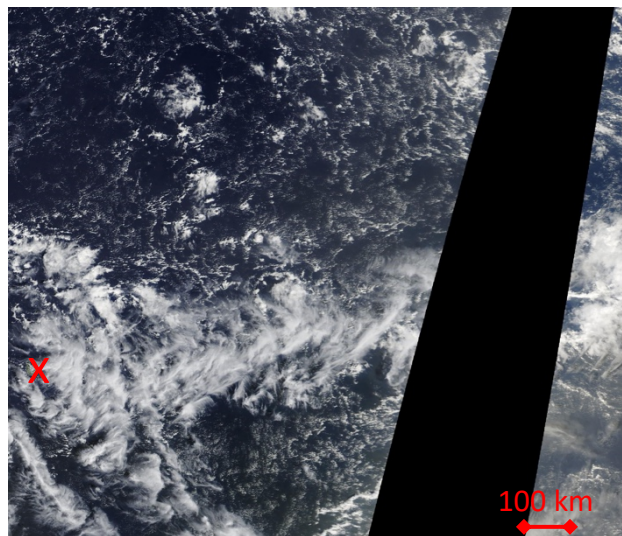
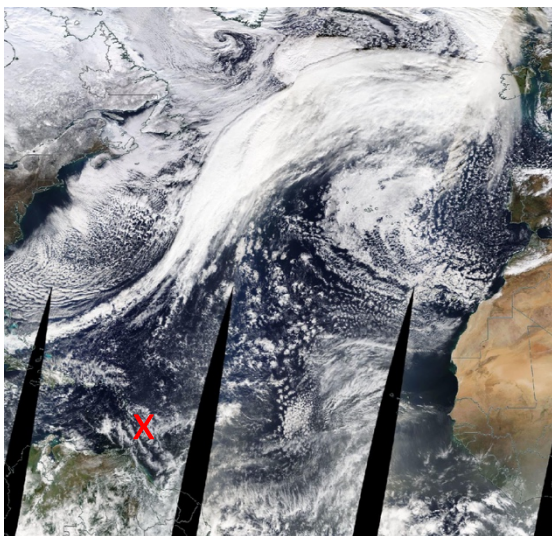


Arrival on 20180126_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180122_15

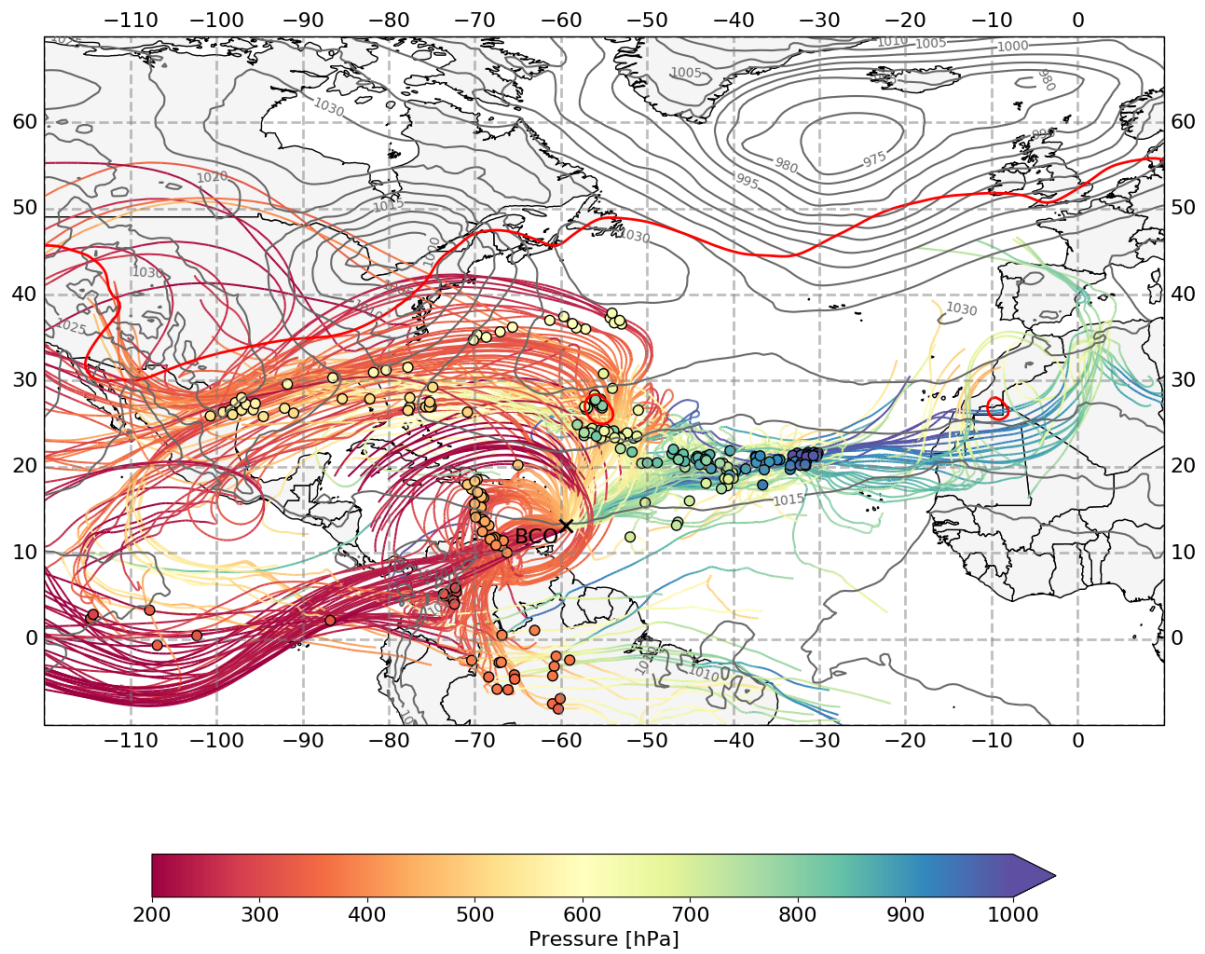


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $88 \text{ hPa (4 days)}^{-1}$

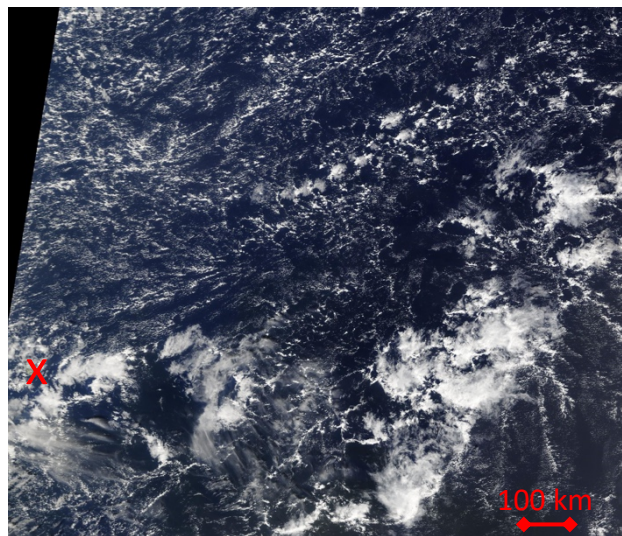
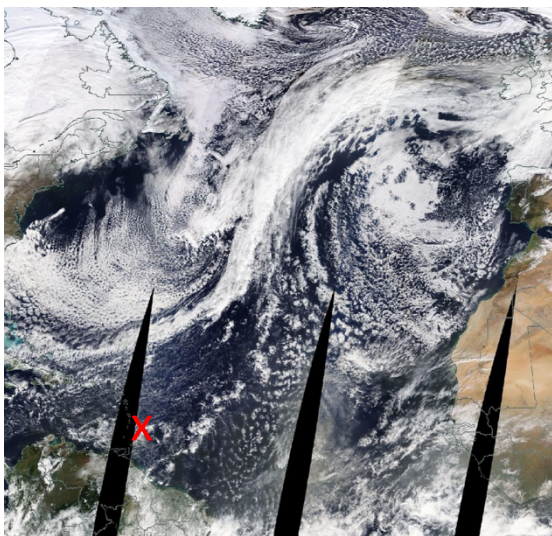


Arrival on 20180127_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180123_15

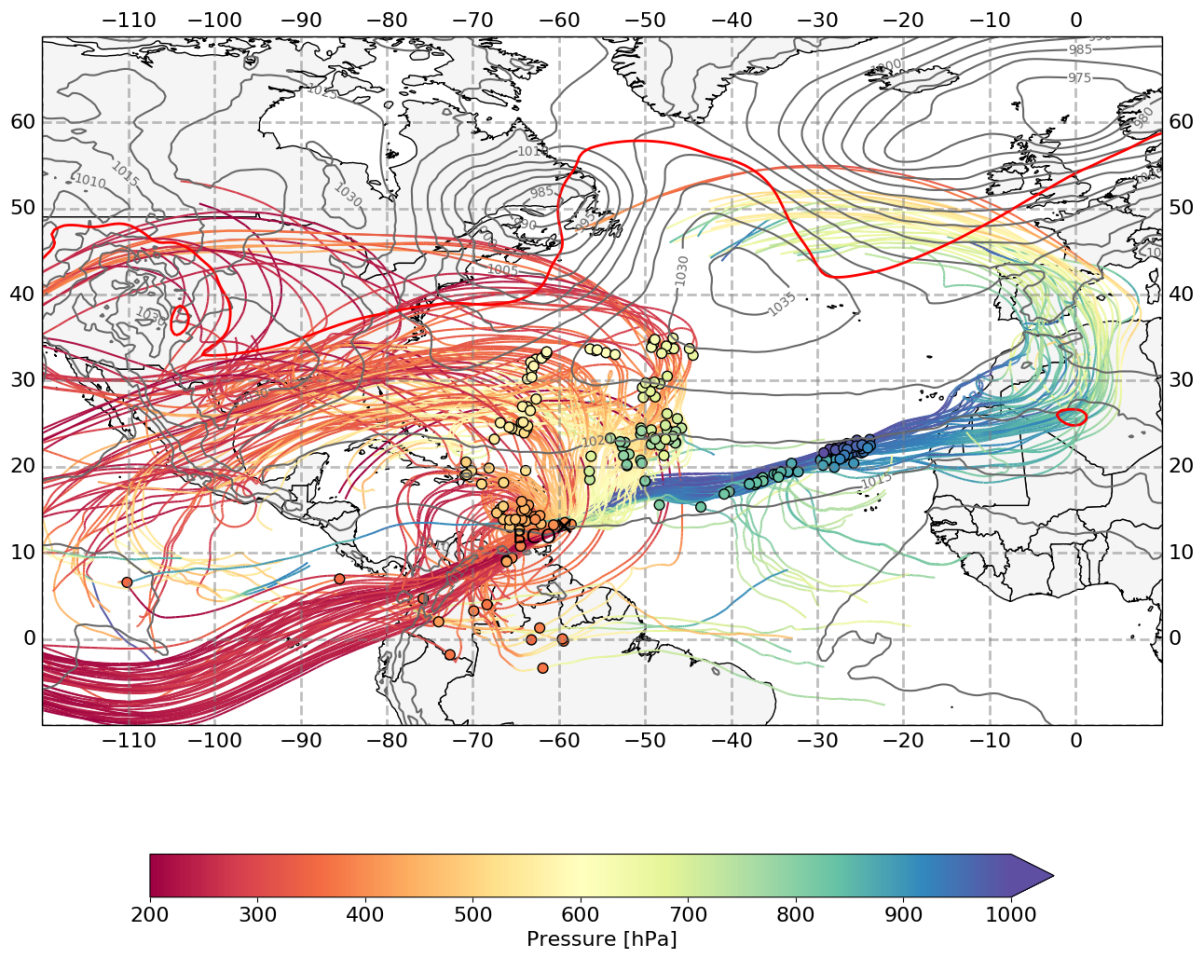


Tropical flow regime

Slantwise subsidence of sub-cloud layer airmasses: $52 \text{ hPa (4 days)}^{-1}$

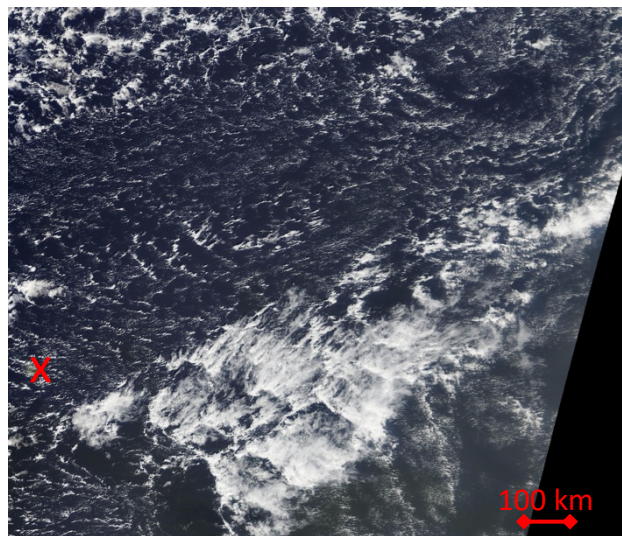
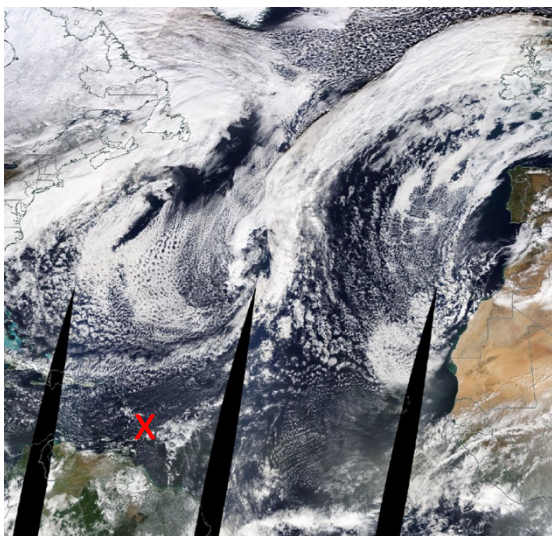


Arrival on 20180128_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180124_15

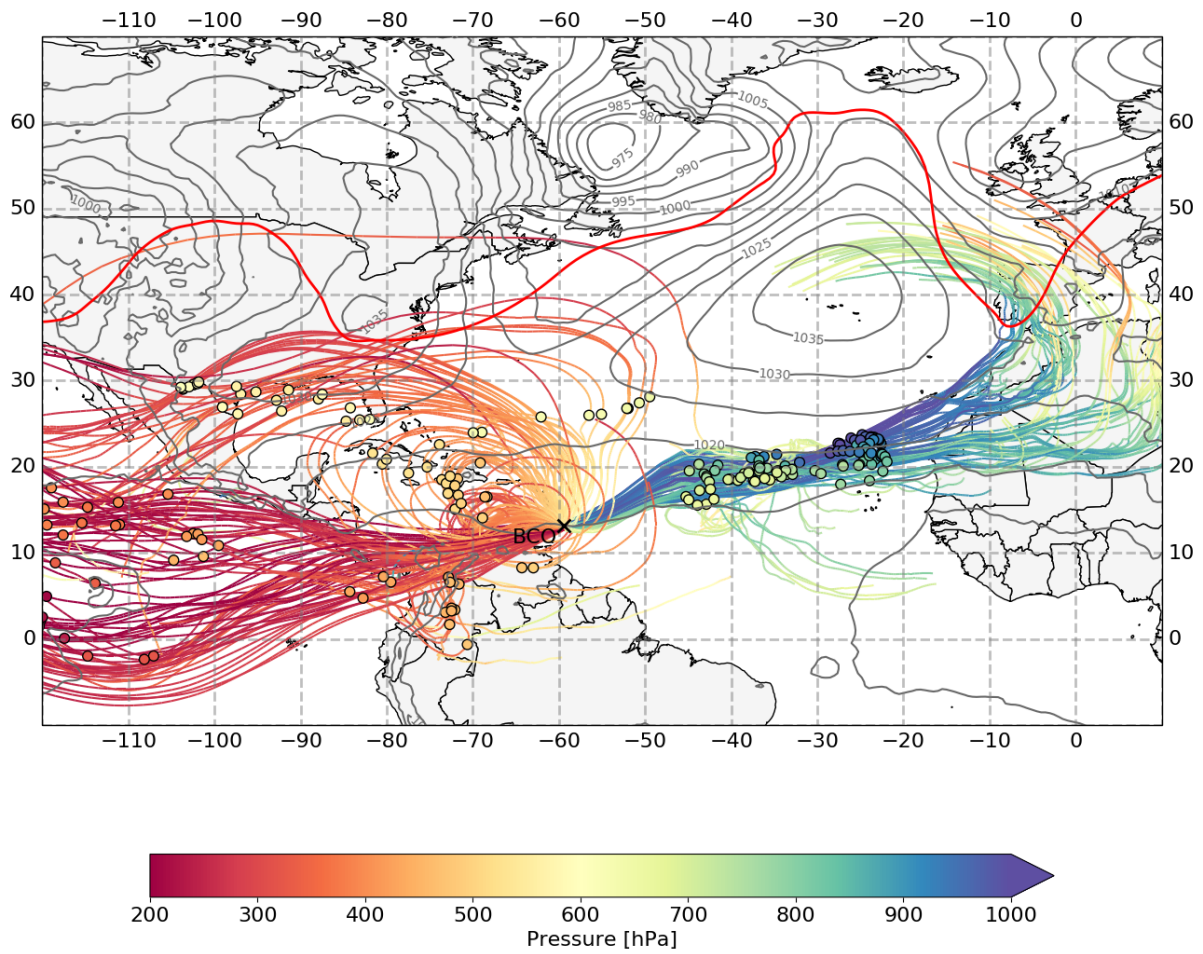


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $24 \text{ hPa (4 days)}^{-1}$

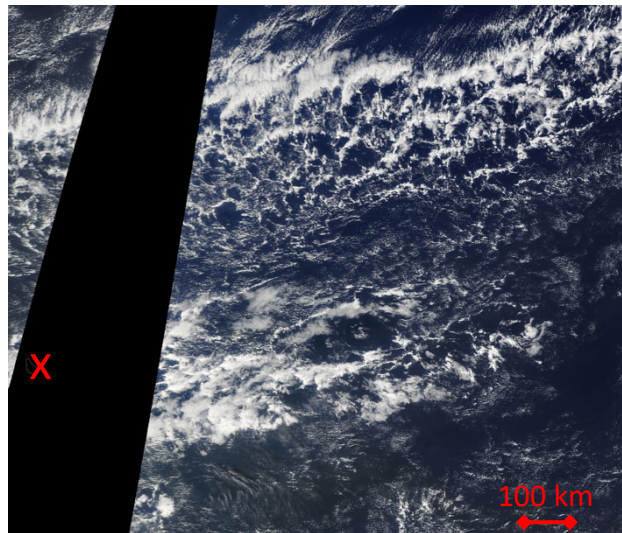
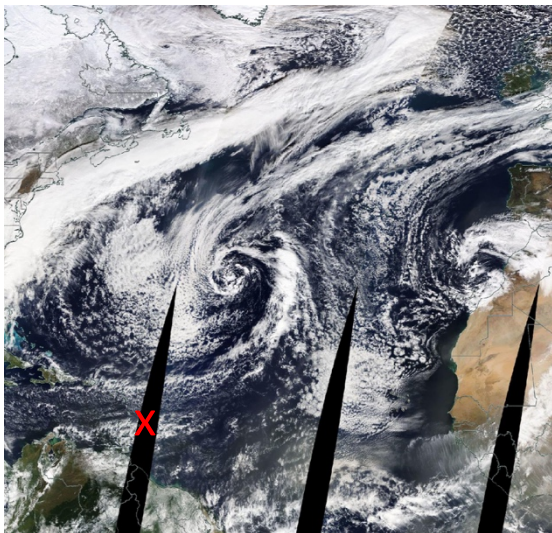


Arrival on 20180129_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180125_15

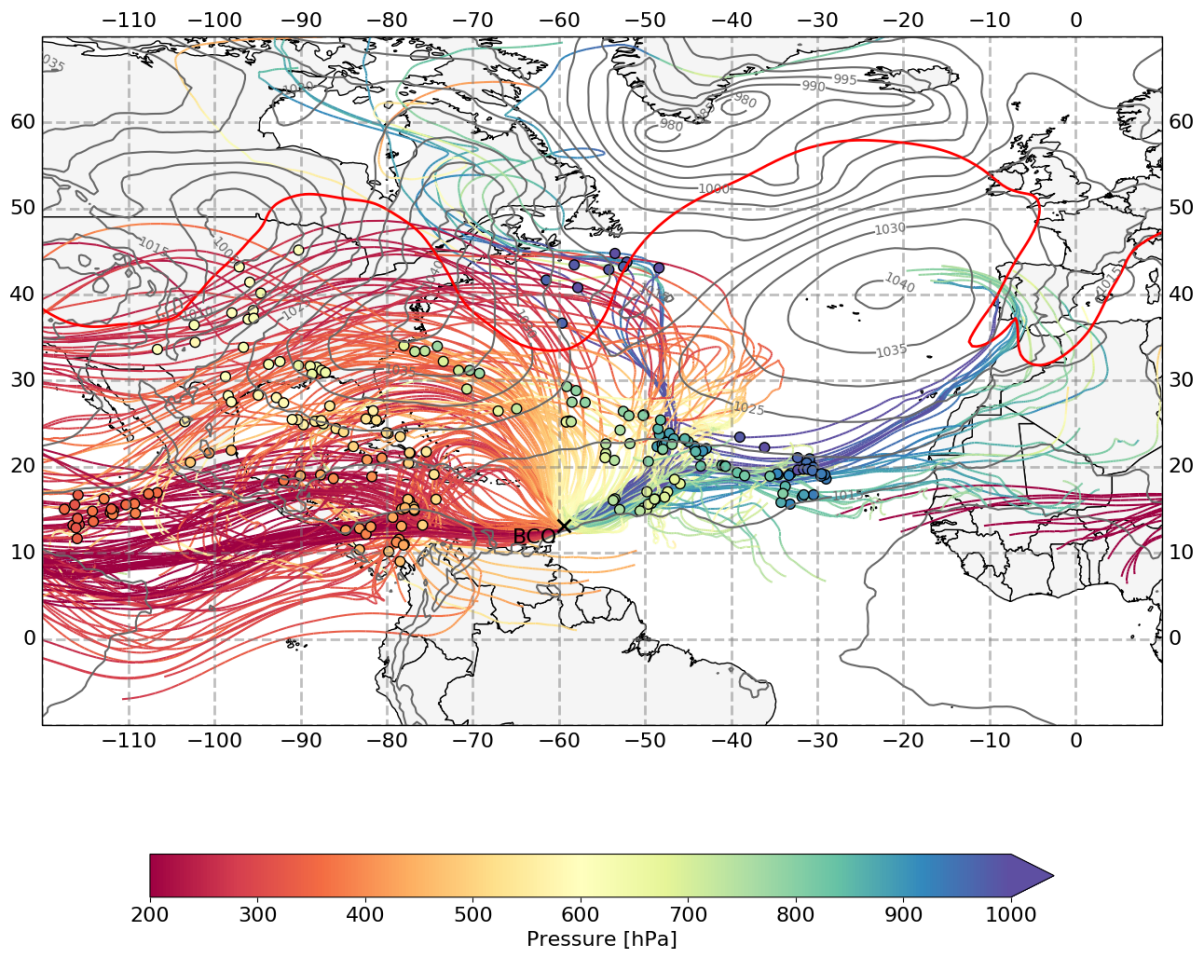


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $7 \text{ hPa (4 days)}^{-1}$

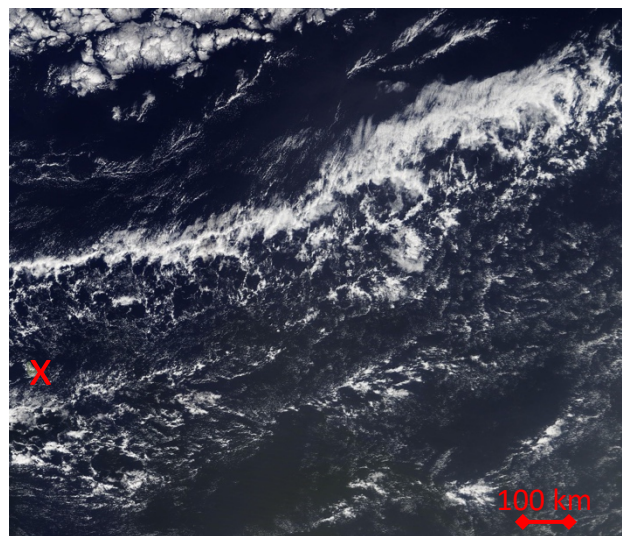
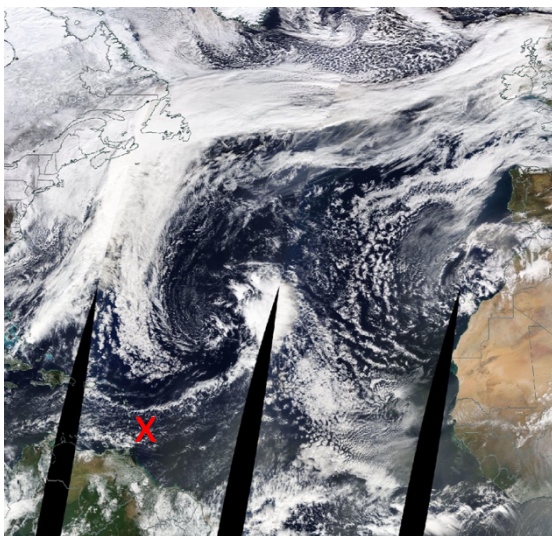


Arrival on 20180130_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180126_15

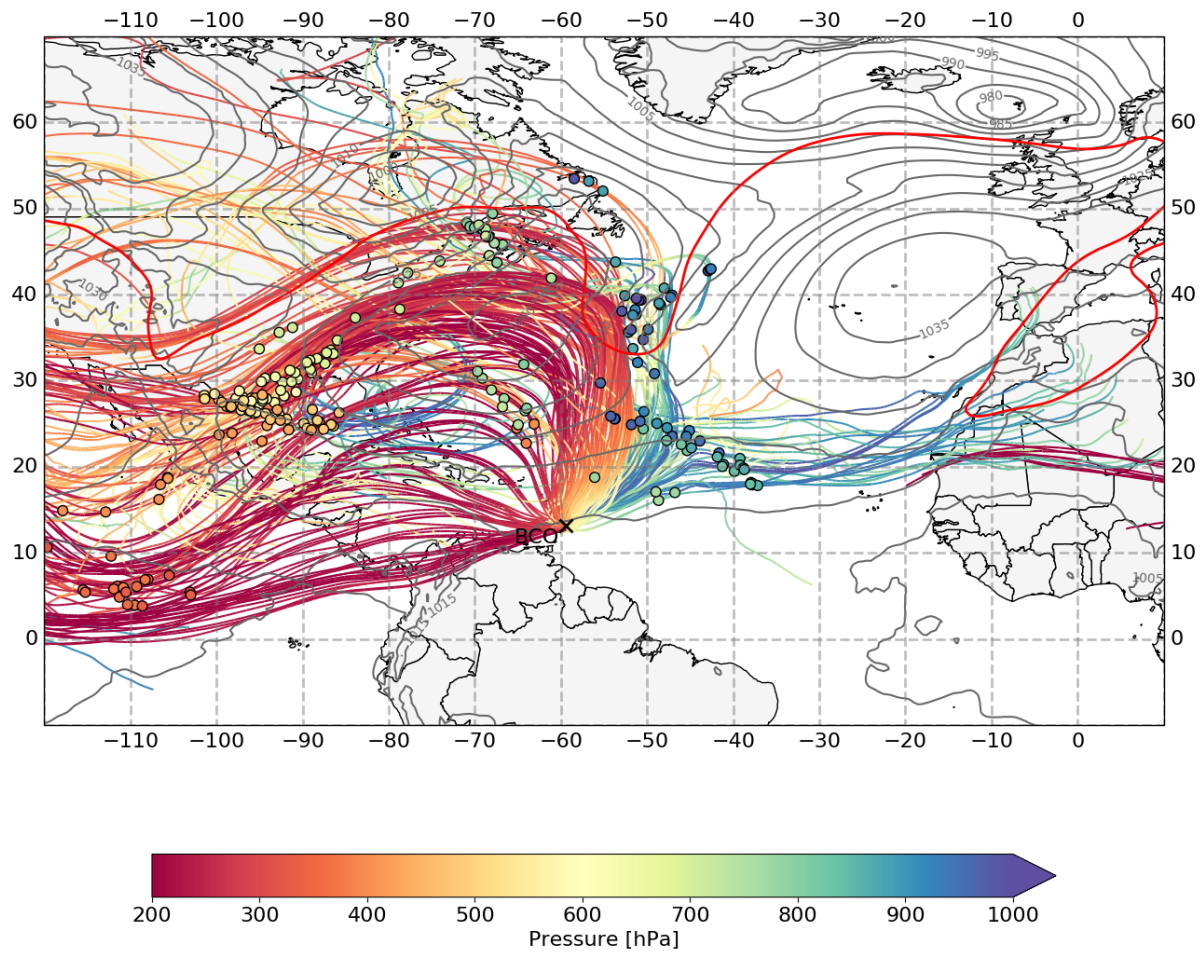


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $21 \text{ hPa (4 days)}^{-1}$

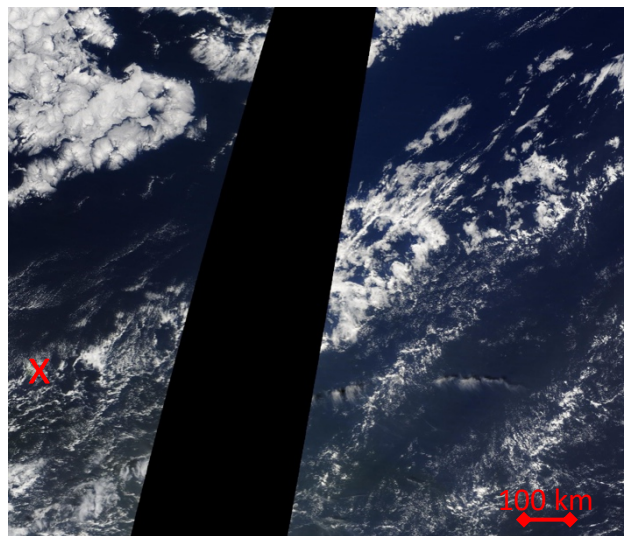
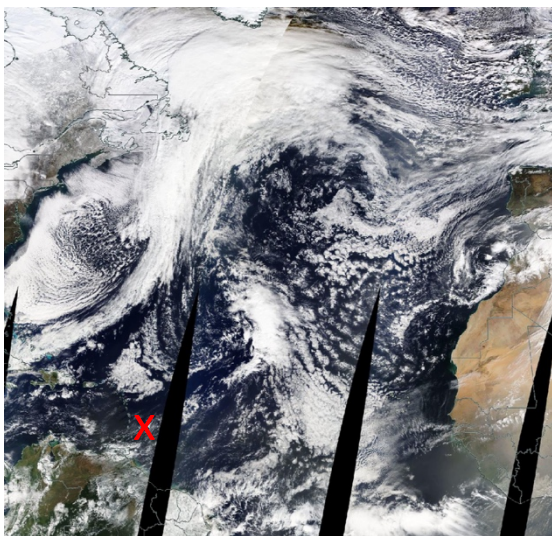


Arrival on 20180131_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180127_15

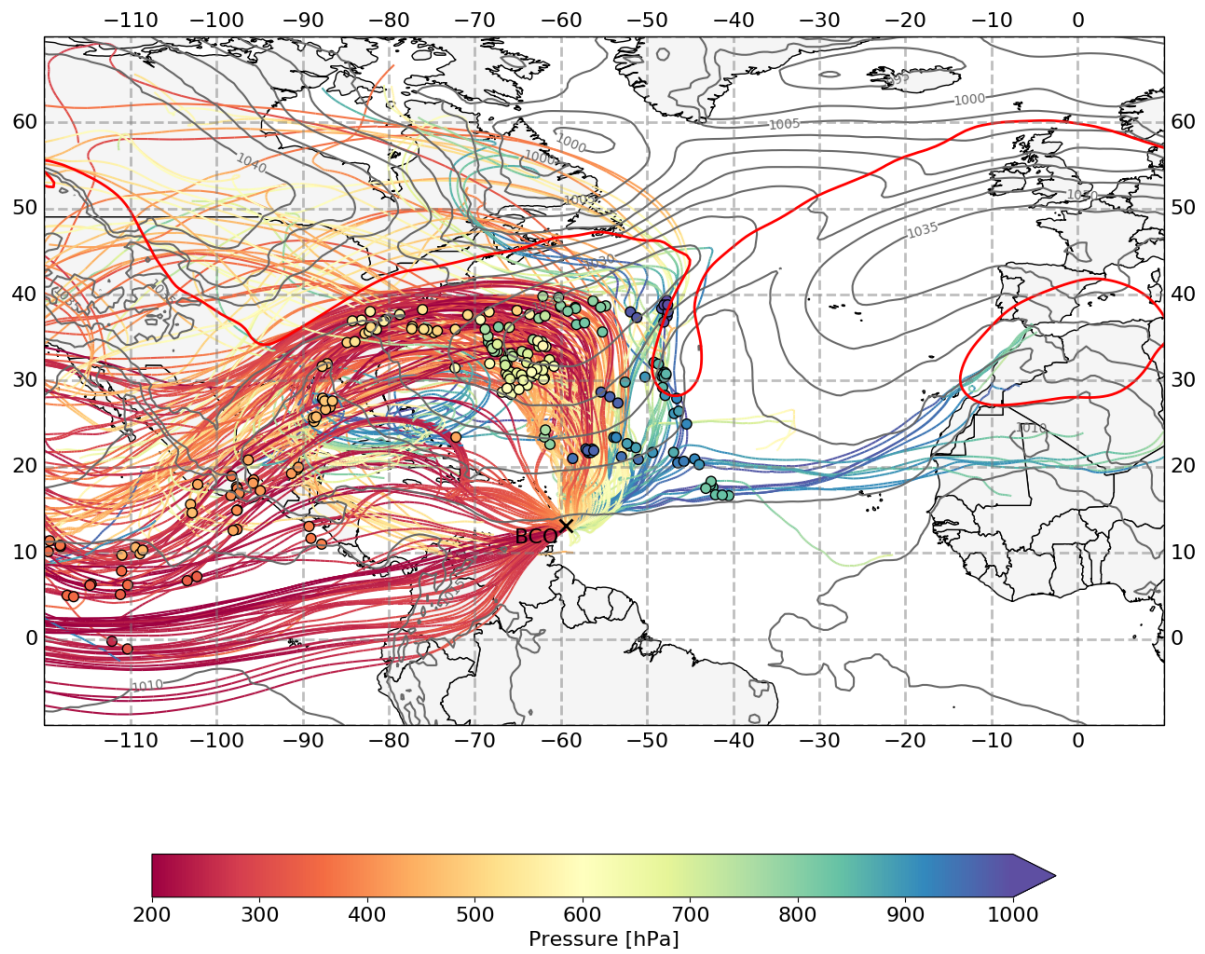


Extratropical dry intrusion regime

Slantwise subsidence of sub-cloud layer airmasses: $314 \text{ hPa} (4 \text{ days})^{-1}$

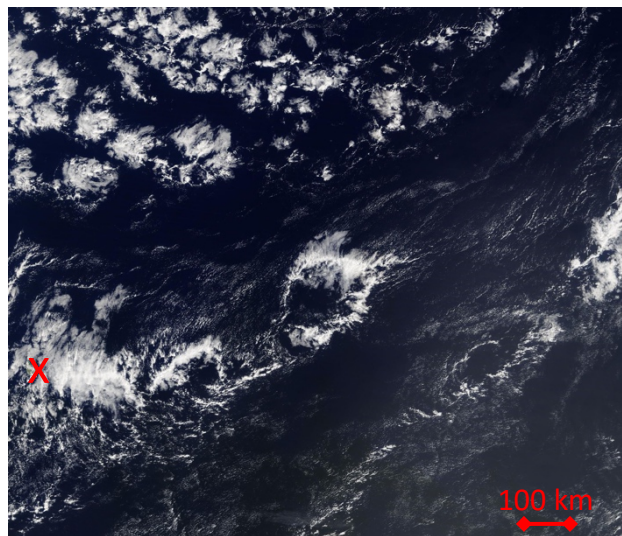
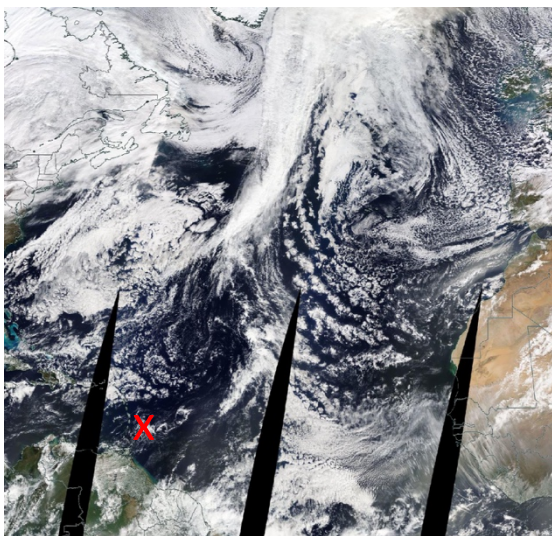


Arrival on 20180201_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180128_15

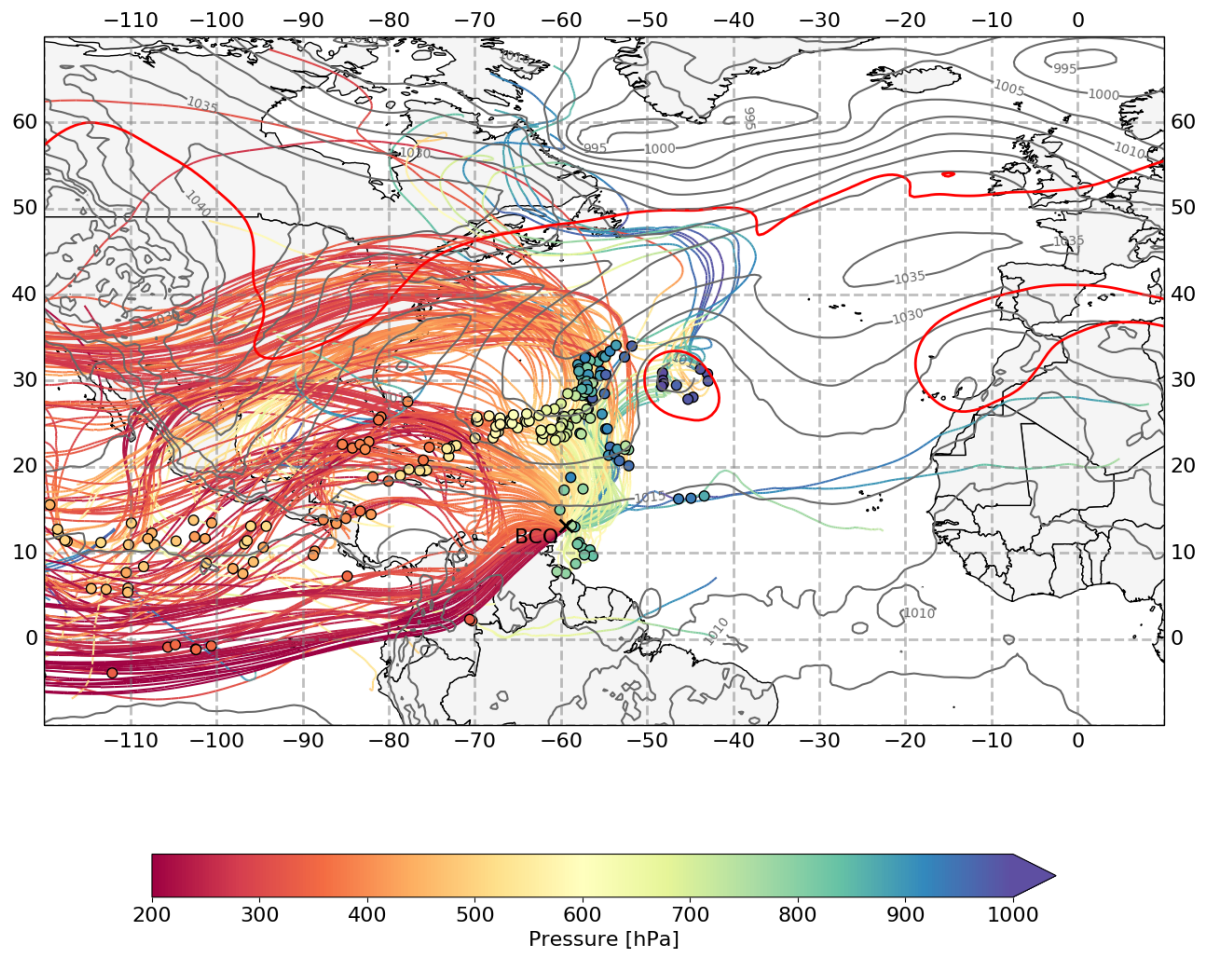


Extratropical dry intrusion regime

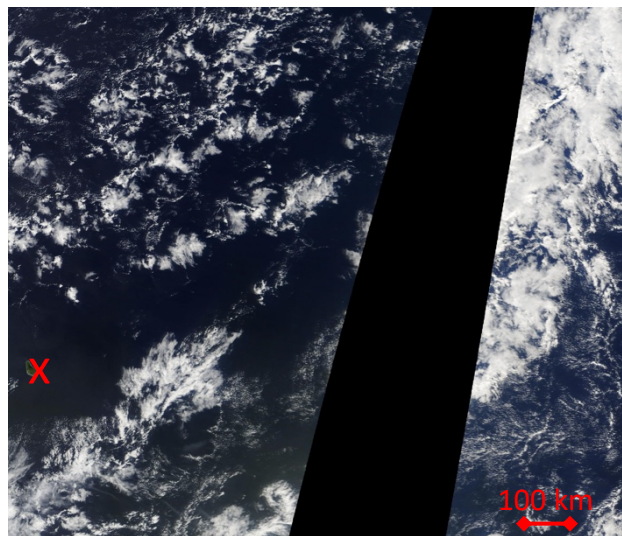
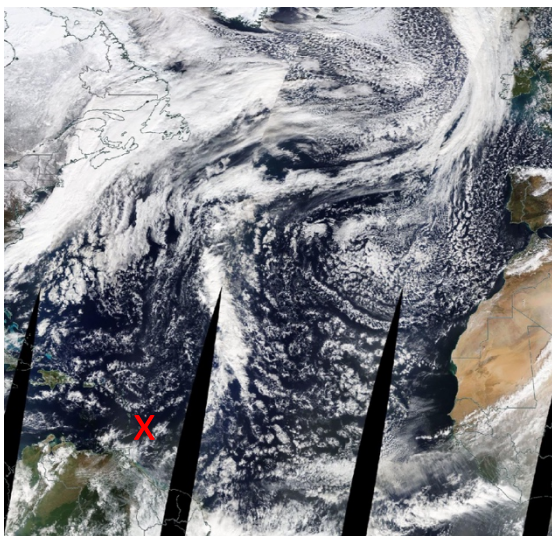
Slantwise subsidence of sub-cloud layer airmasses: $283 \text{ hPa} (4 \text{ days})^{-1}$



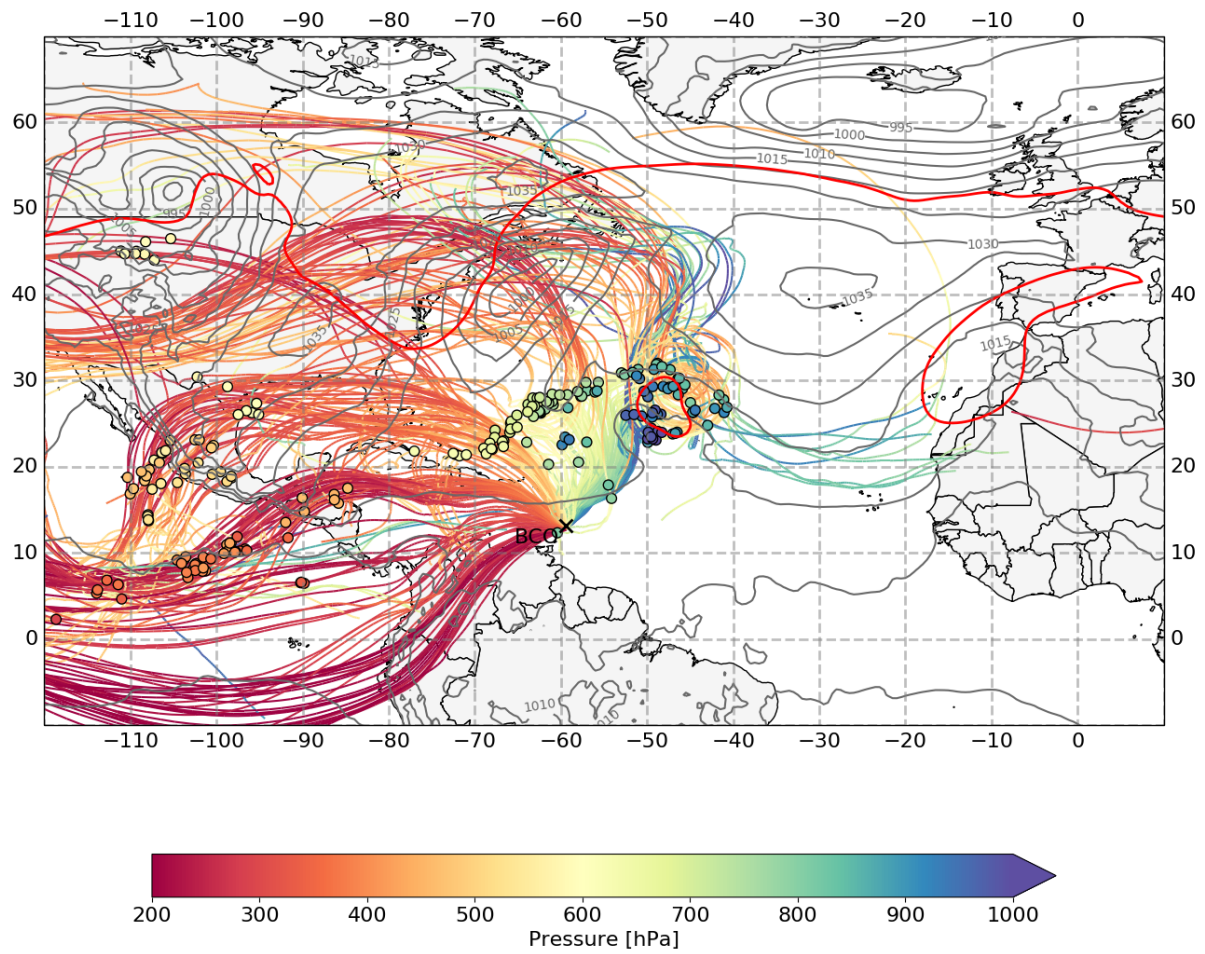
Arrival on 20180202_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180129_15



Extratropical dry intrusion regime
Slantwise subsidence of sub-cloud layer air masses: $299 \text{ hPa} (4 \text{ days})^{-1}$

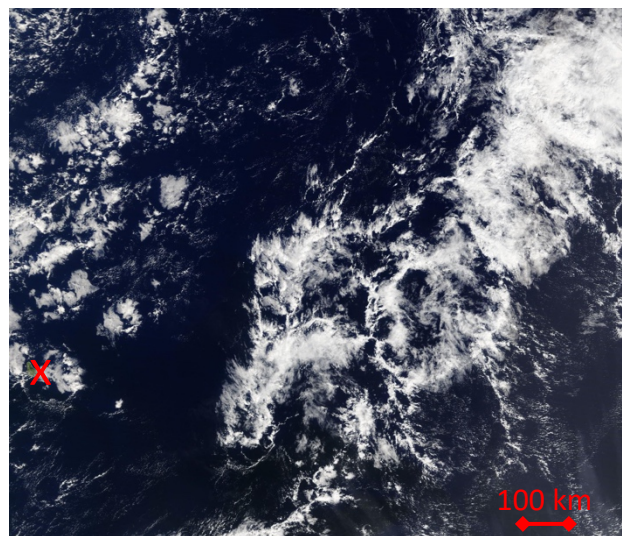
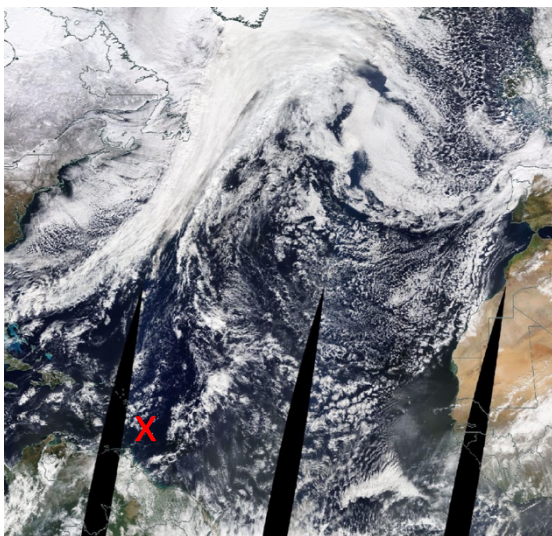


Arrival on 20180203_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180130_15

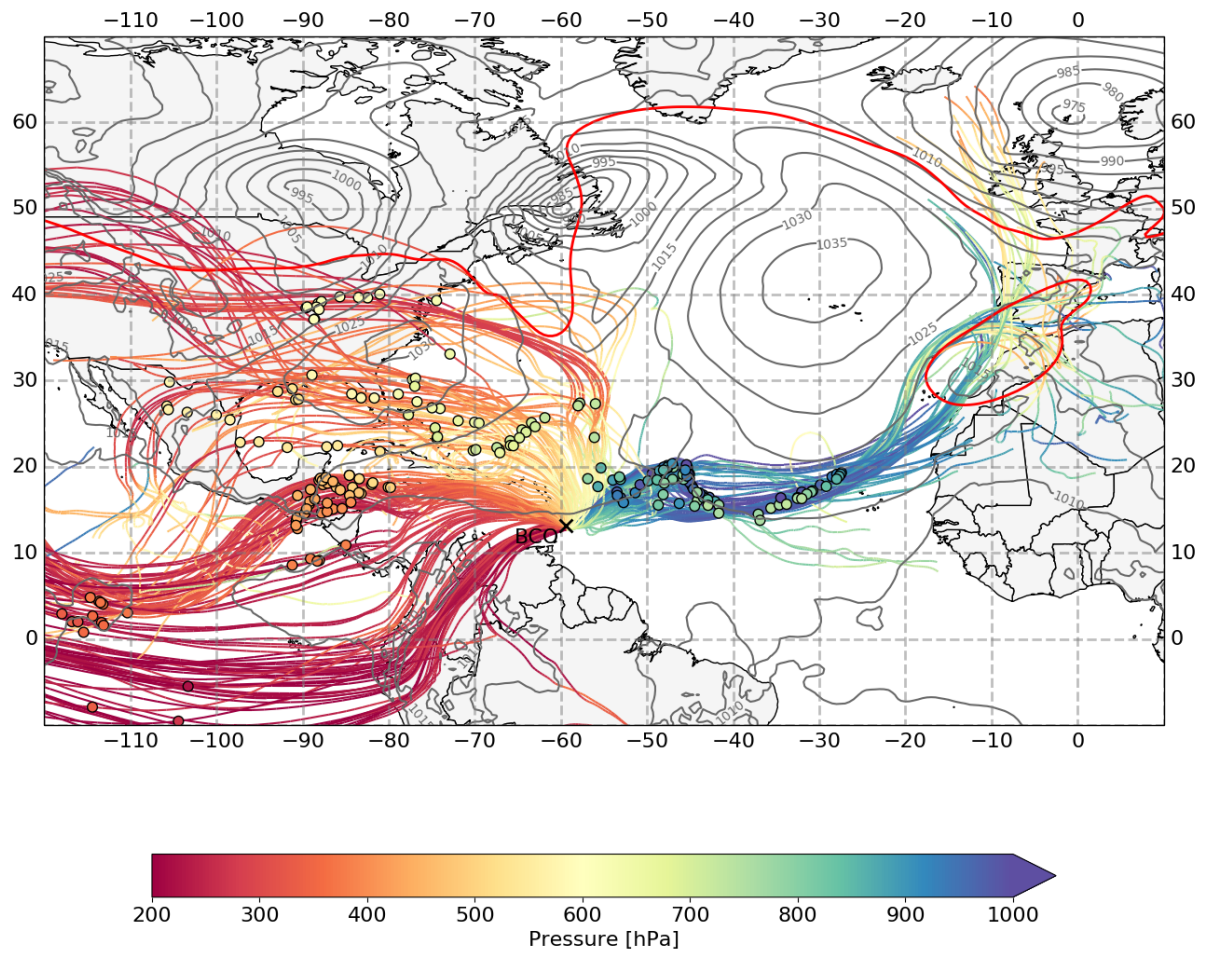


Extratropical dry intrusion regime

Slantwise subsidence of sub-cloud layer airmasses: $141 \text{ hPa} (4 \text{ days})^{-1}$

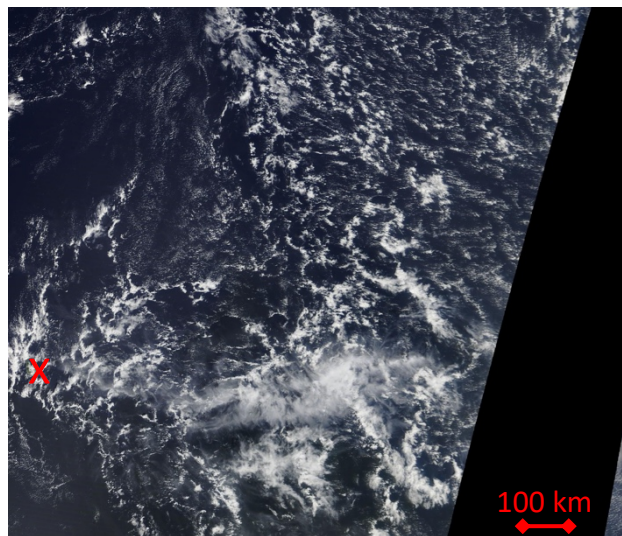
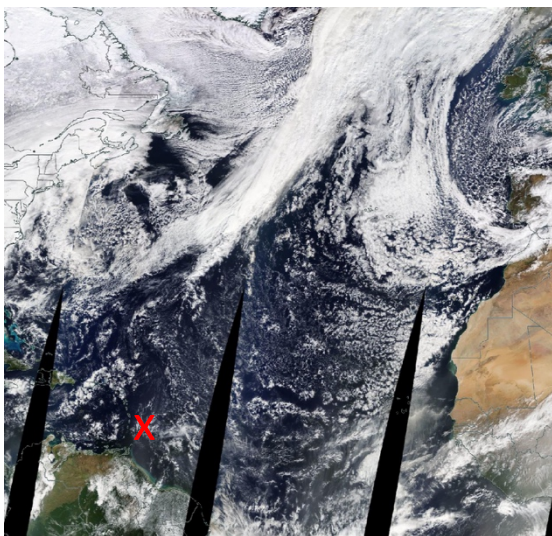


Arrival on 20180204_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180131_15

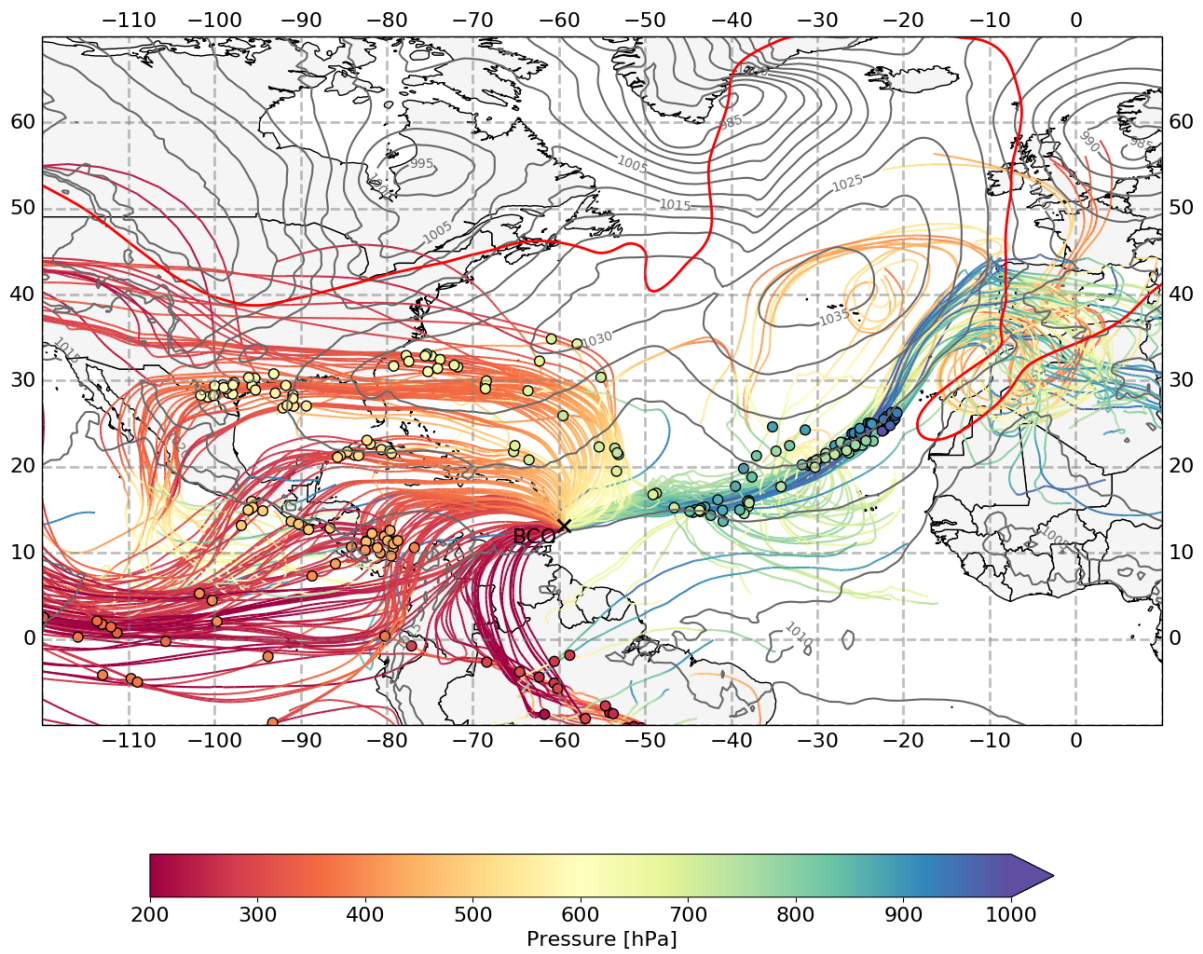


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $18 \text{ hPa (4 days)}^{-1}$

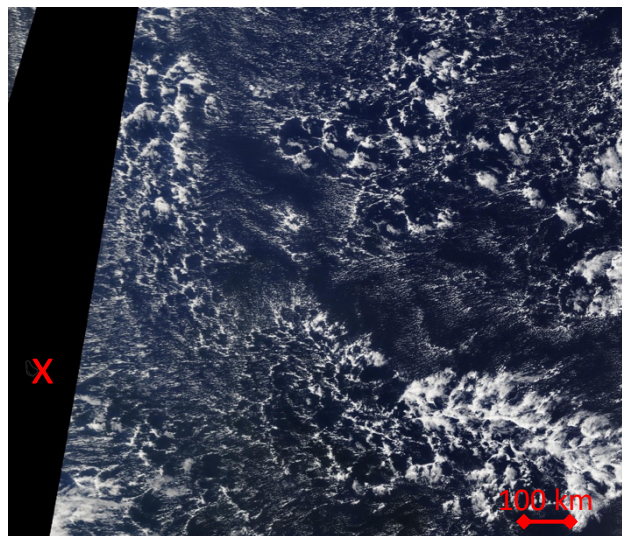
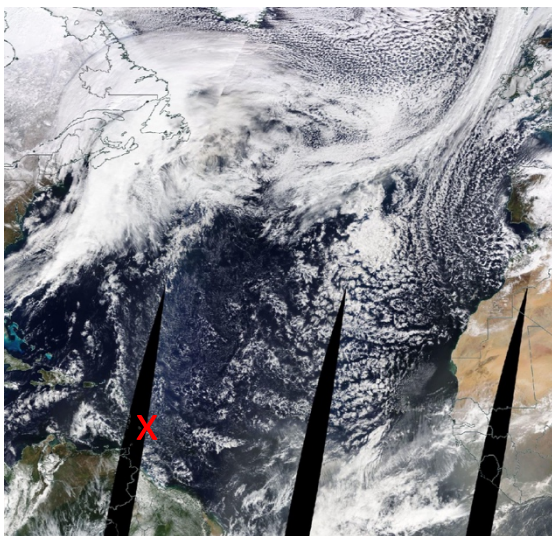


Arrival on 20180205_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180201_15

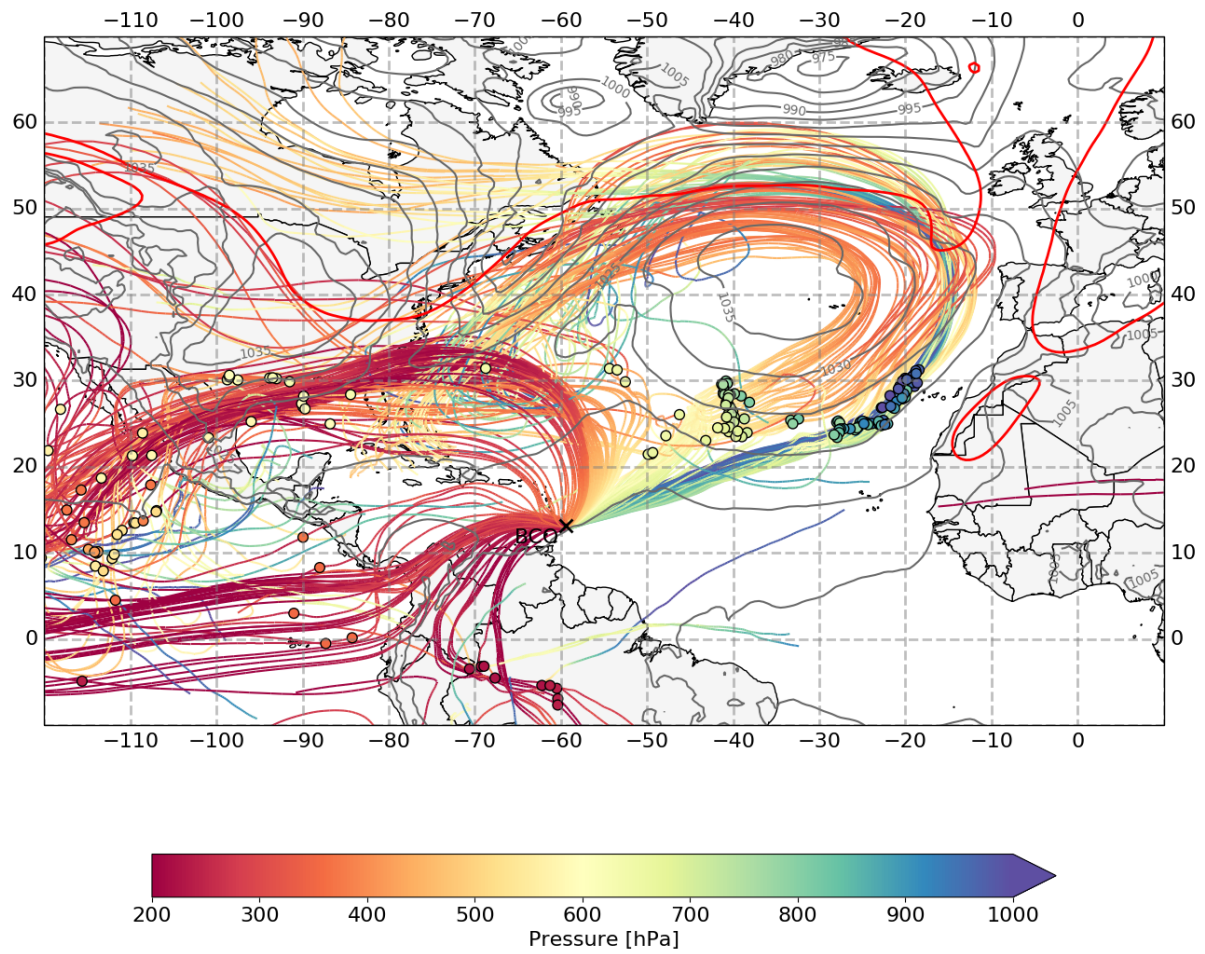


Extratropical dry intrusion regime

Slantwise subsidence of sub-cloud layer airmasses: $104 \text{ hPa} (4 \text{ days})^{-1}$

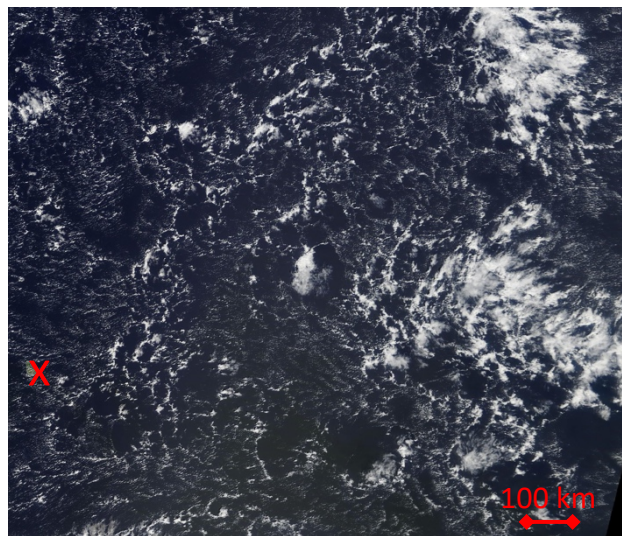
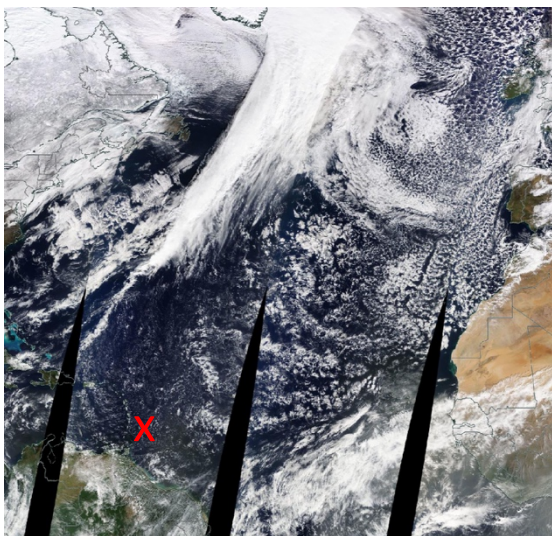


Arrival on 20180206_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180202_15

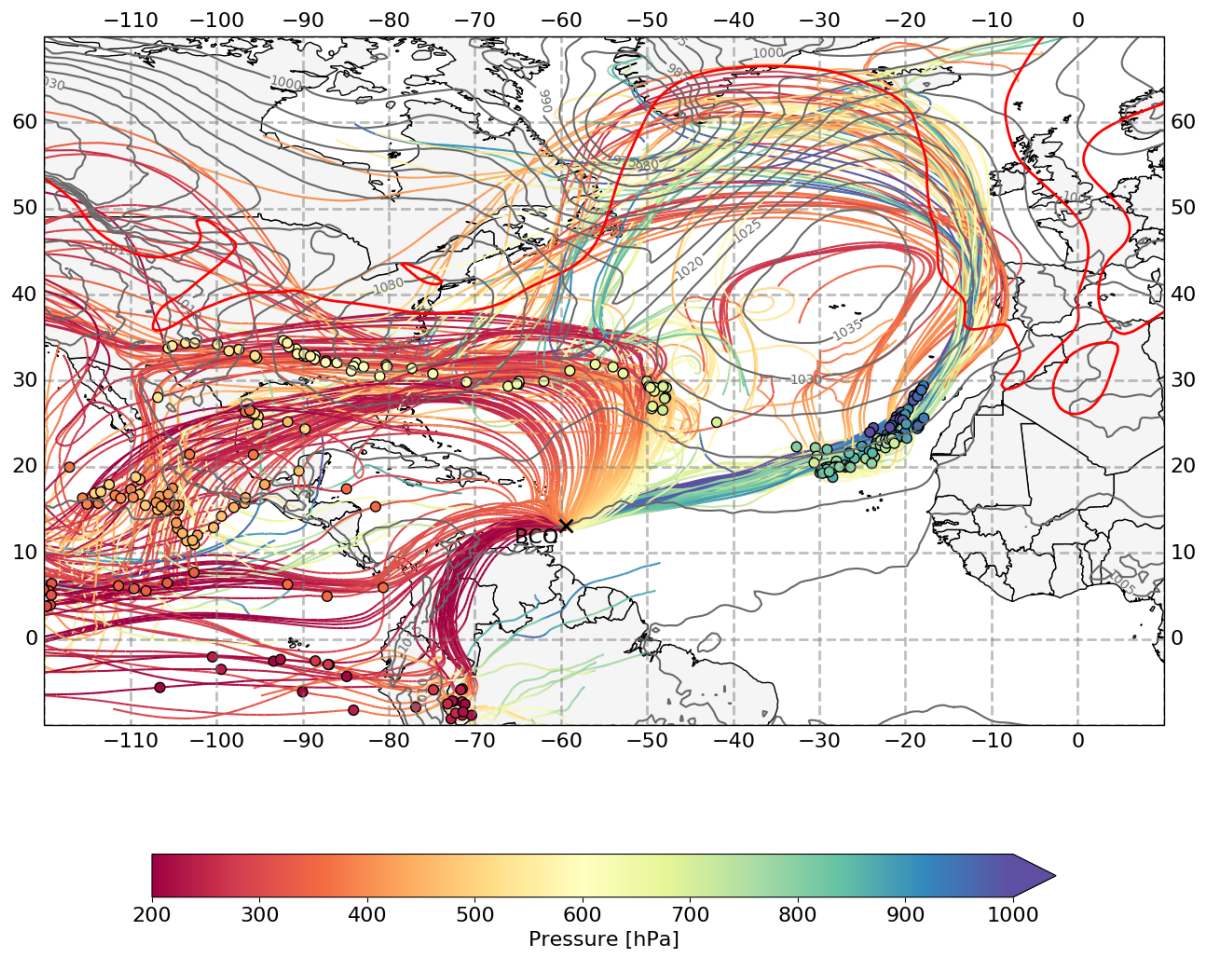


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: 87 hPa (4 days)⁻¹

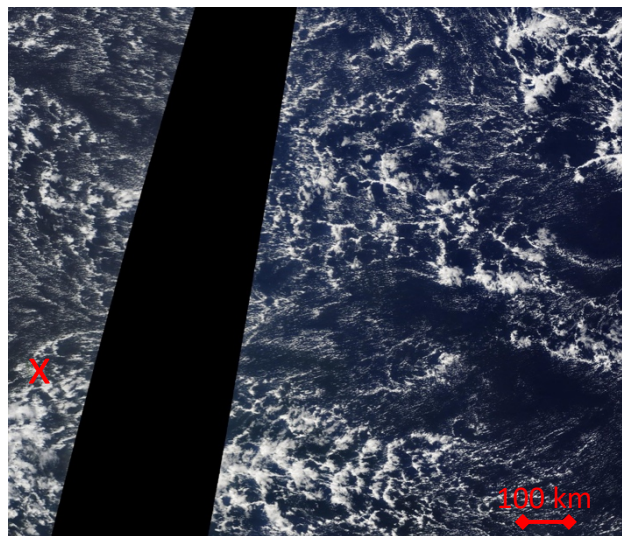
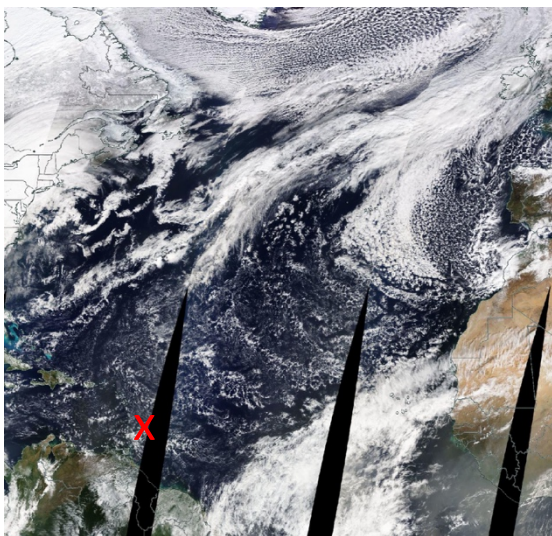


Arrival on 20180207_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180203_15

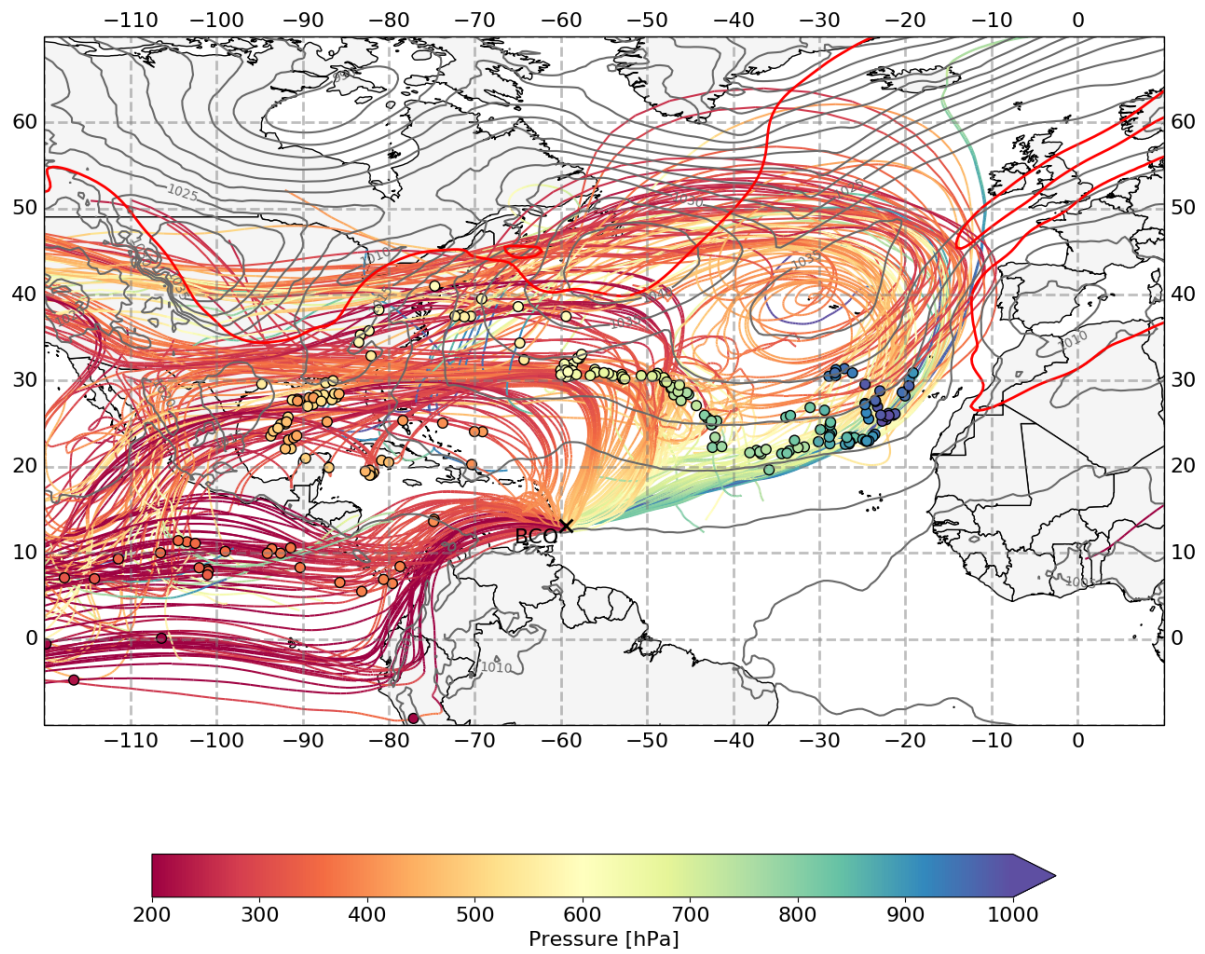


Extratropical trade wind regime

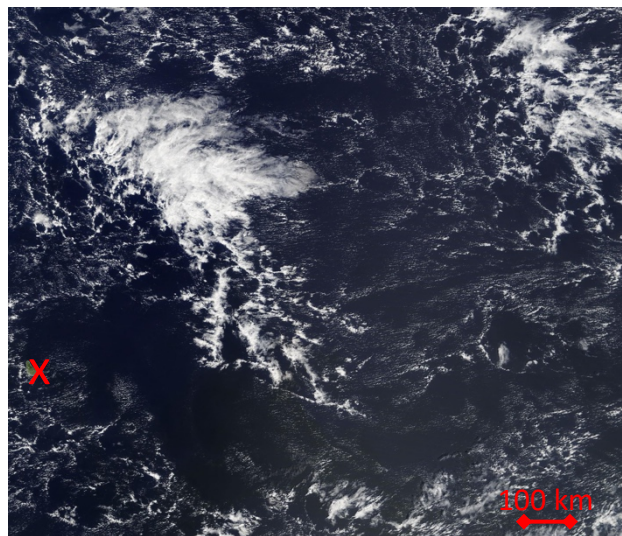
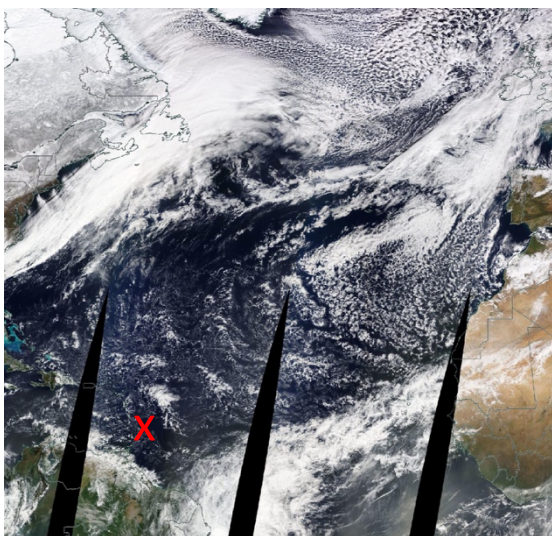
Slantwise subsidence of sub-cloud layer air masses: $43 \text{ hPa (4 days)}^{-1}$



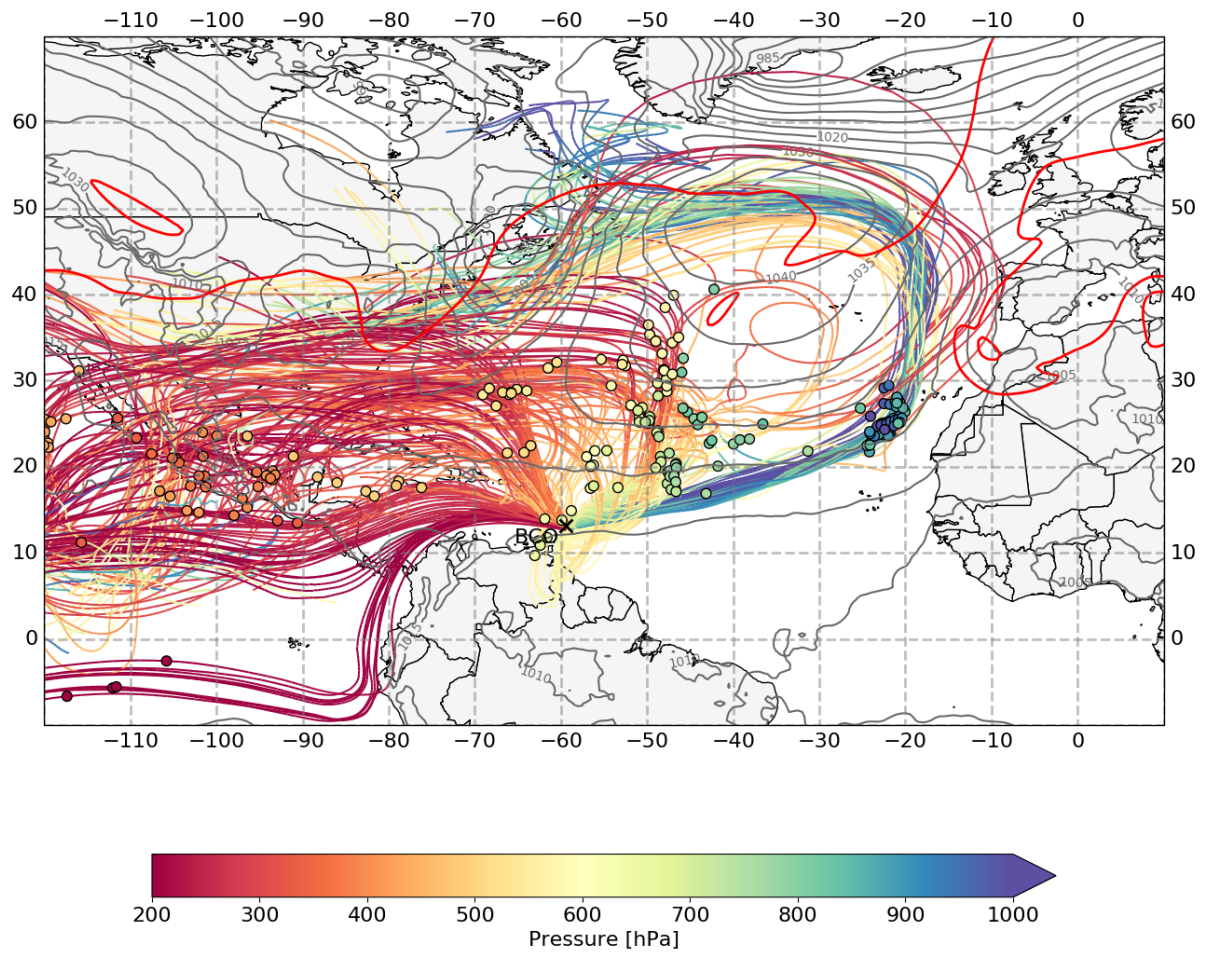
Arrival on 20180208_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180204_15



Extratropical dry intrusion regime
Slantwise subsidence of sub-cloud layer airmasses: $217 \text{ hPa (4 days)}^{-1}$

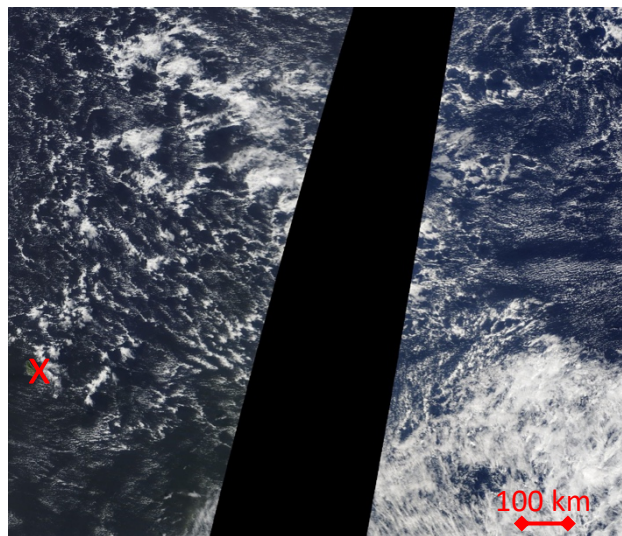
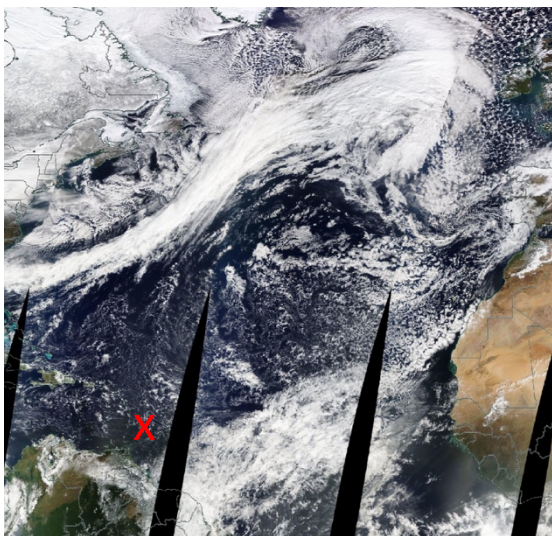


Arrival on 20180209_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180205_15

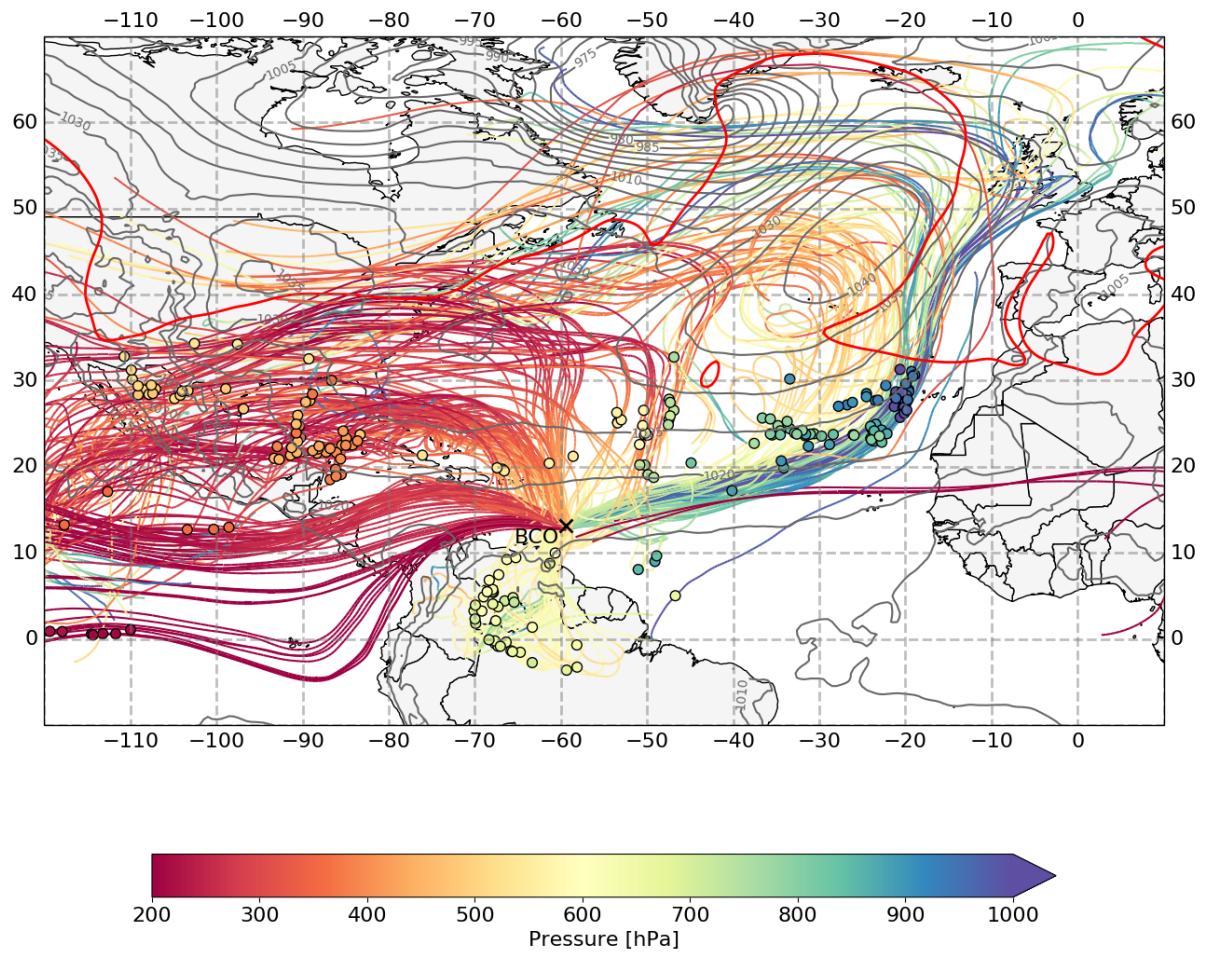


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $-21 \text{ hPa (4 days)}^{-1}$

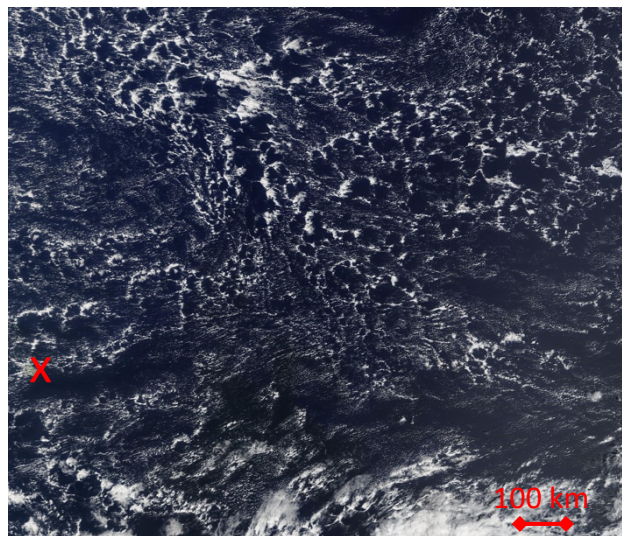
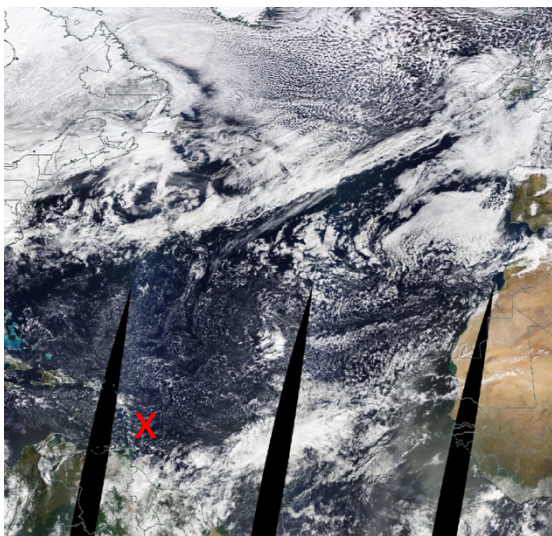


Arrival on 20180210_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180206_15

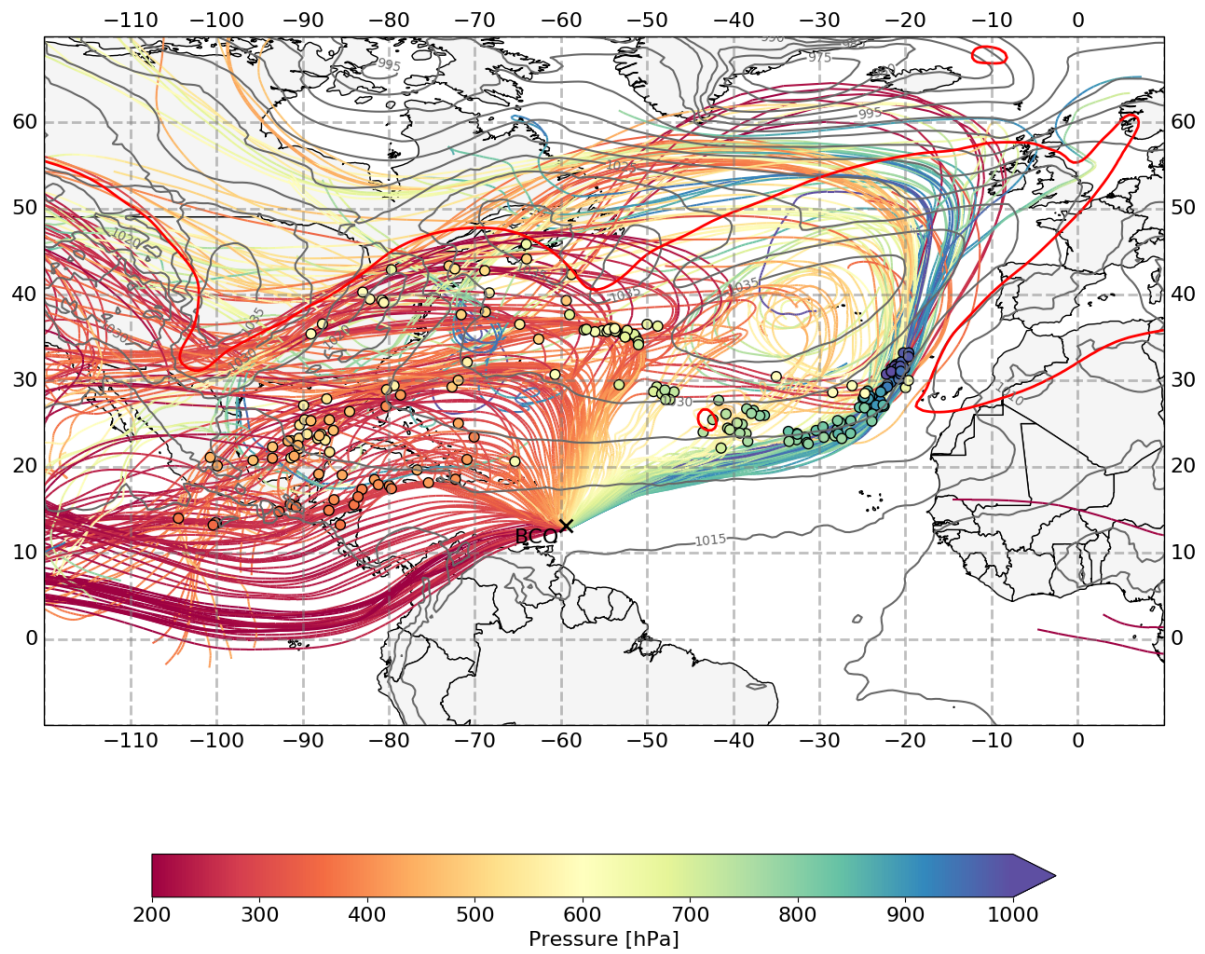


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: 60 hPa (4 days)⁻¹

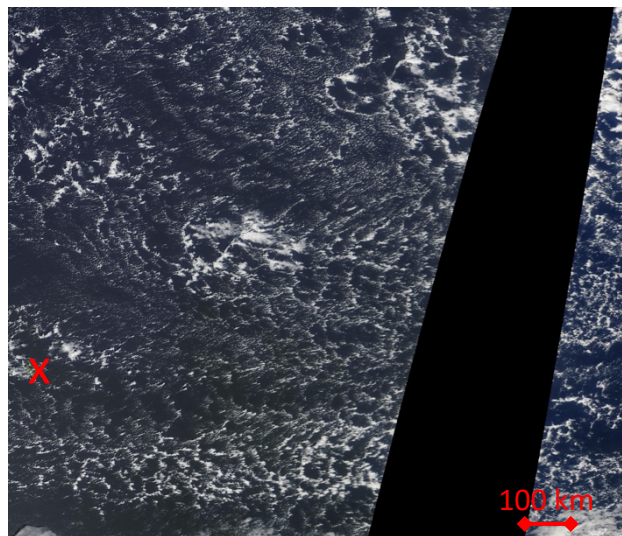
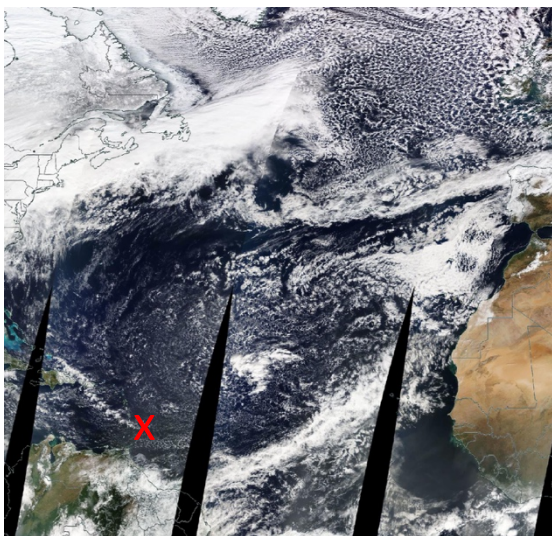


Arrival on 20180211_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180207_15

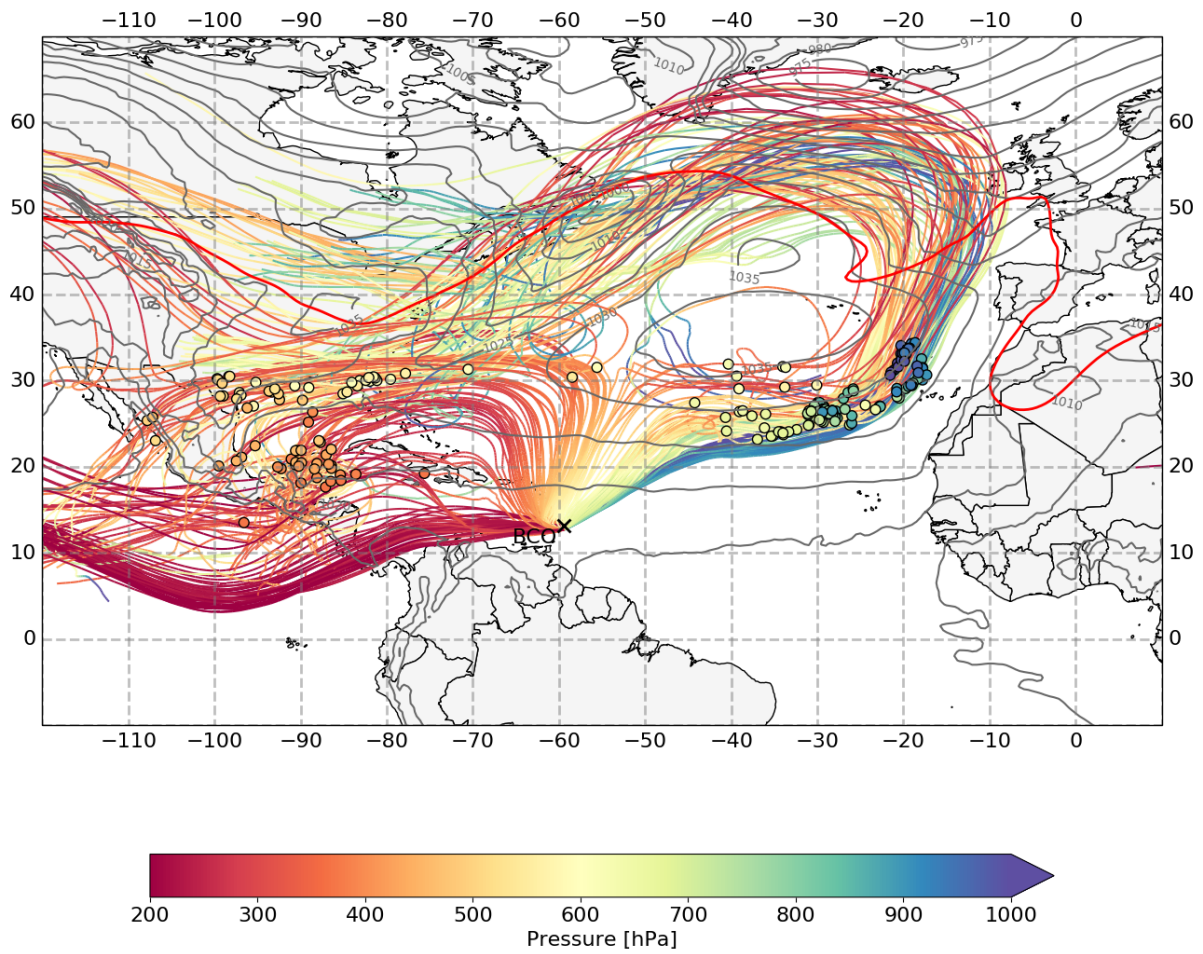


Extratropical dry intrusion regime

Slantwise subsidence of sub-cloud layer airmasses: $102 \text{ hPa} (4 \text{ days})^{-1}$

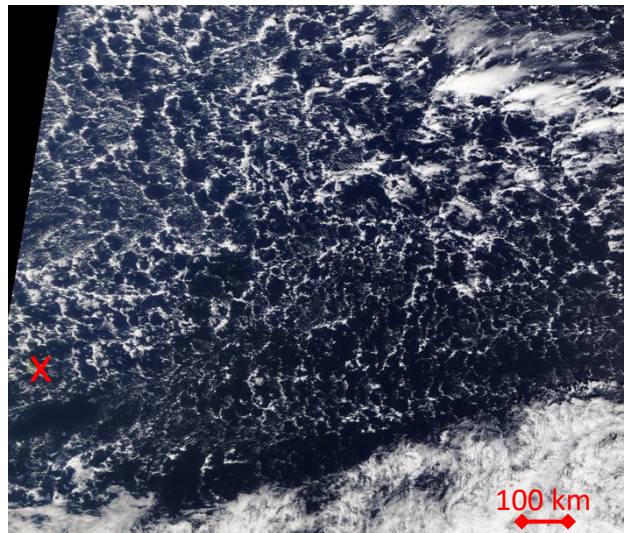
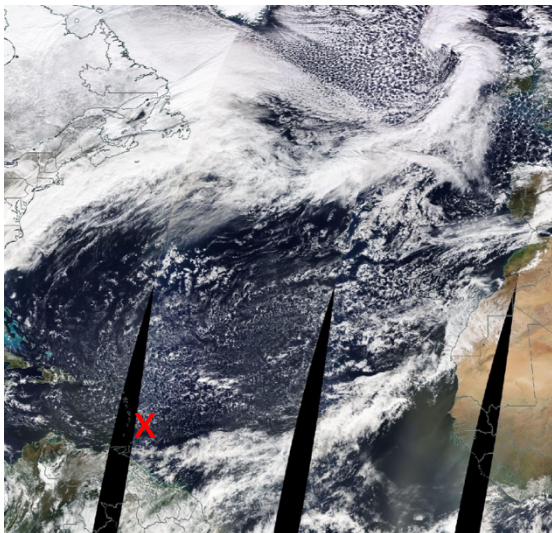


Arrival on 20180212_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180208_15

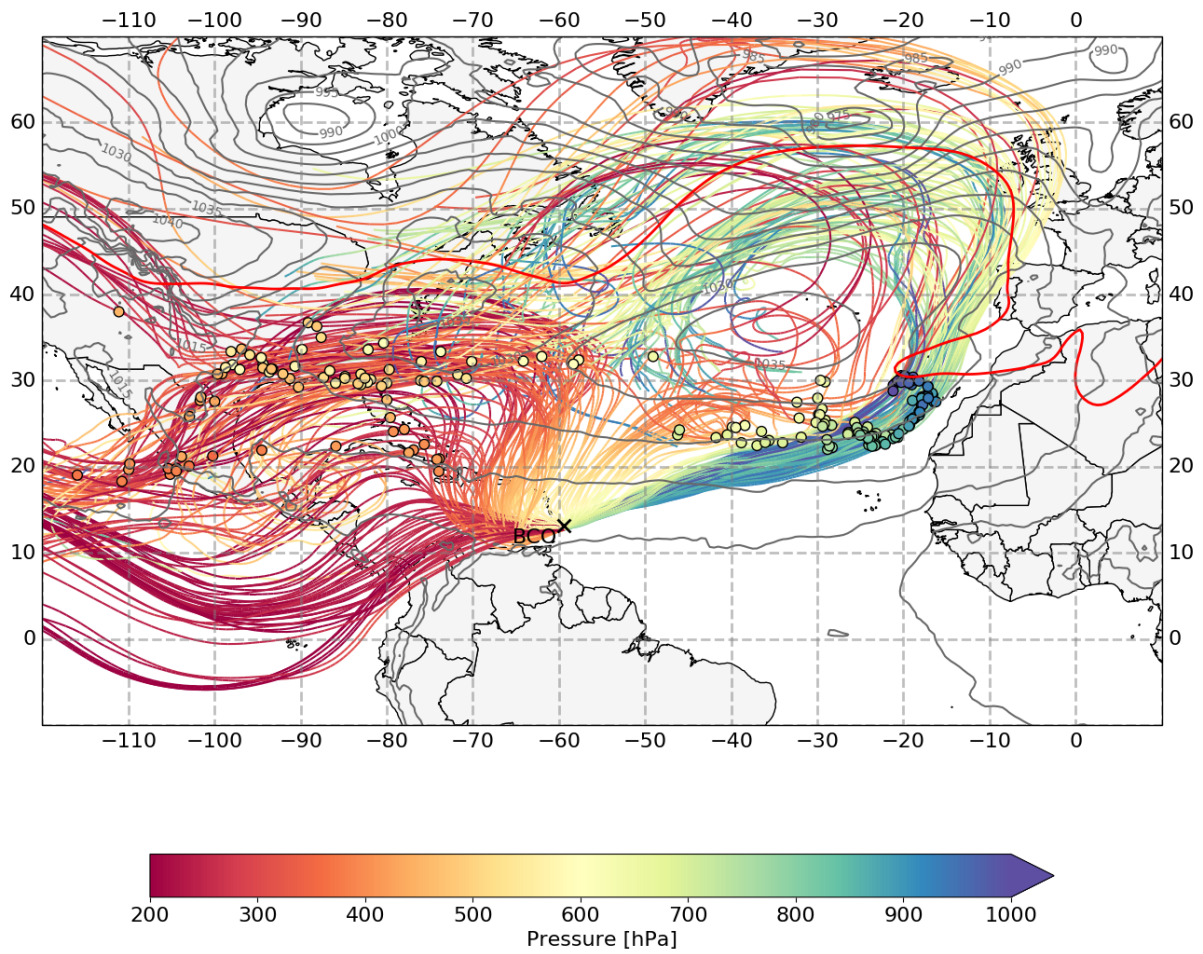


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $81 \text{ hPa (4 days)}^{-1}$

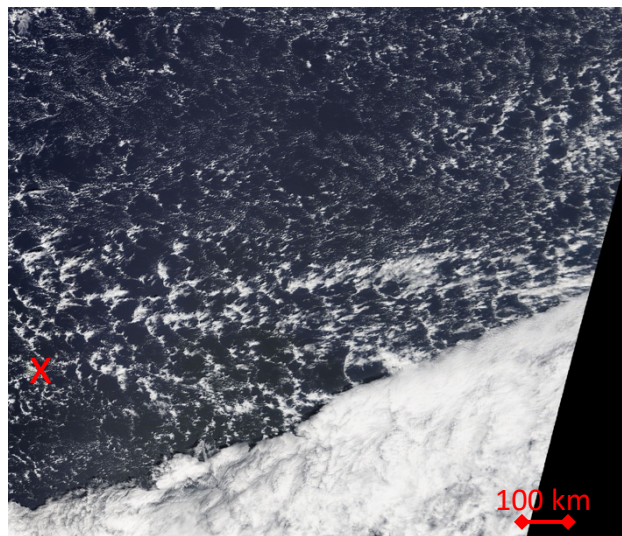
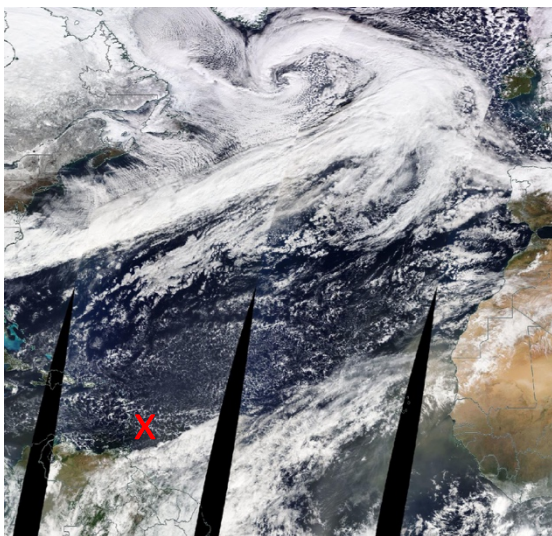


Arrival on 20180213_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180209_15

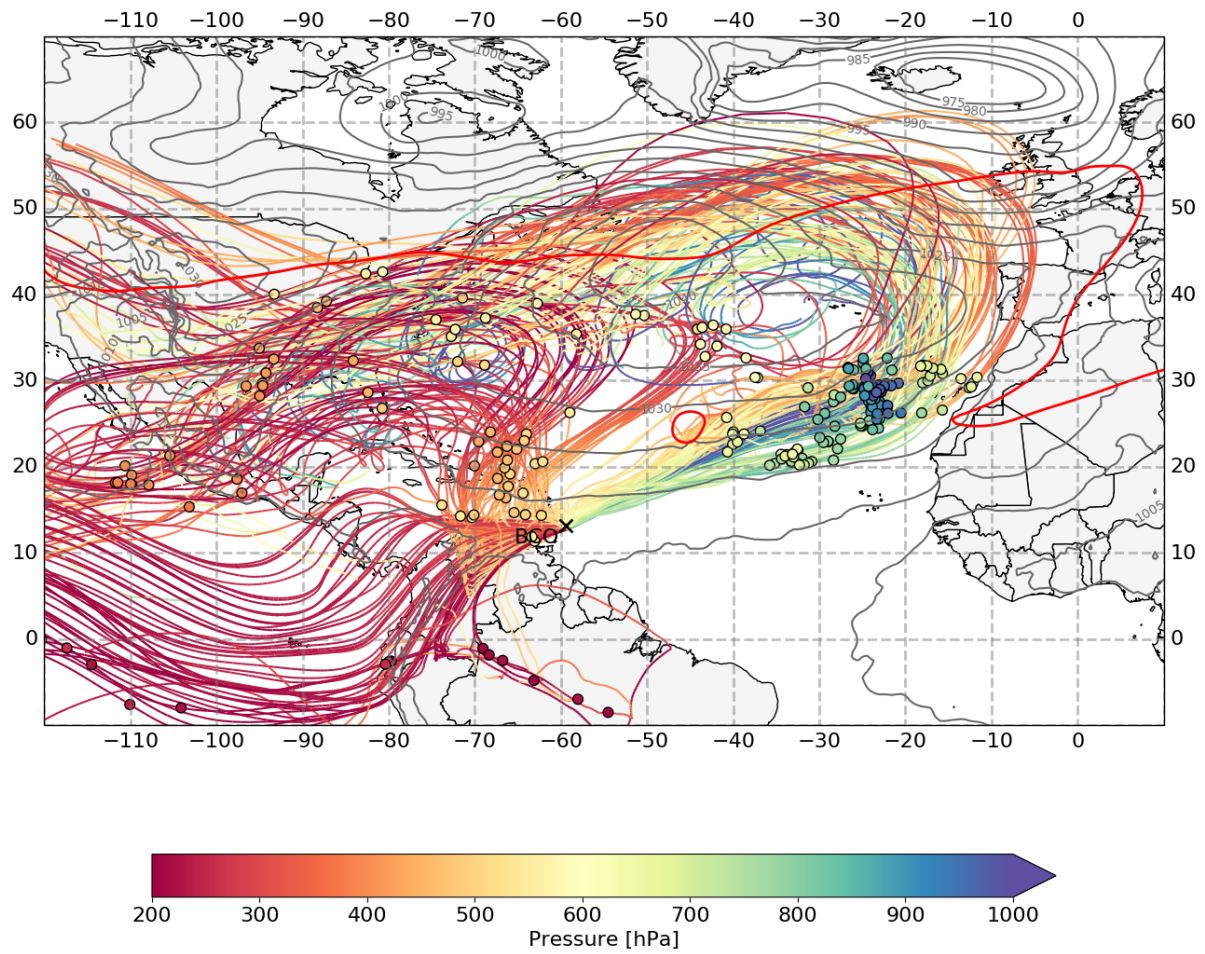


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $85 \text{ hPa (4 days)}^{-1}$

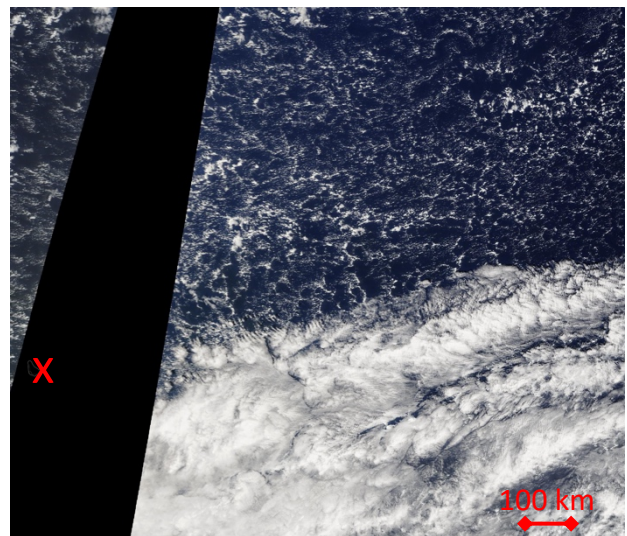
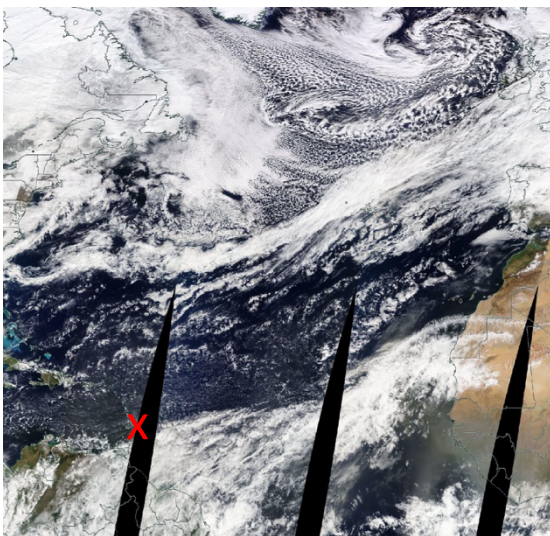


Arrival on 20180214_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180210_15

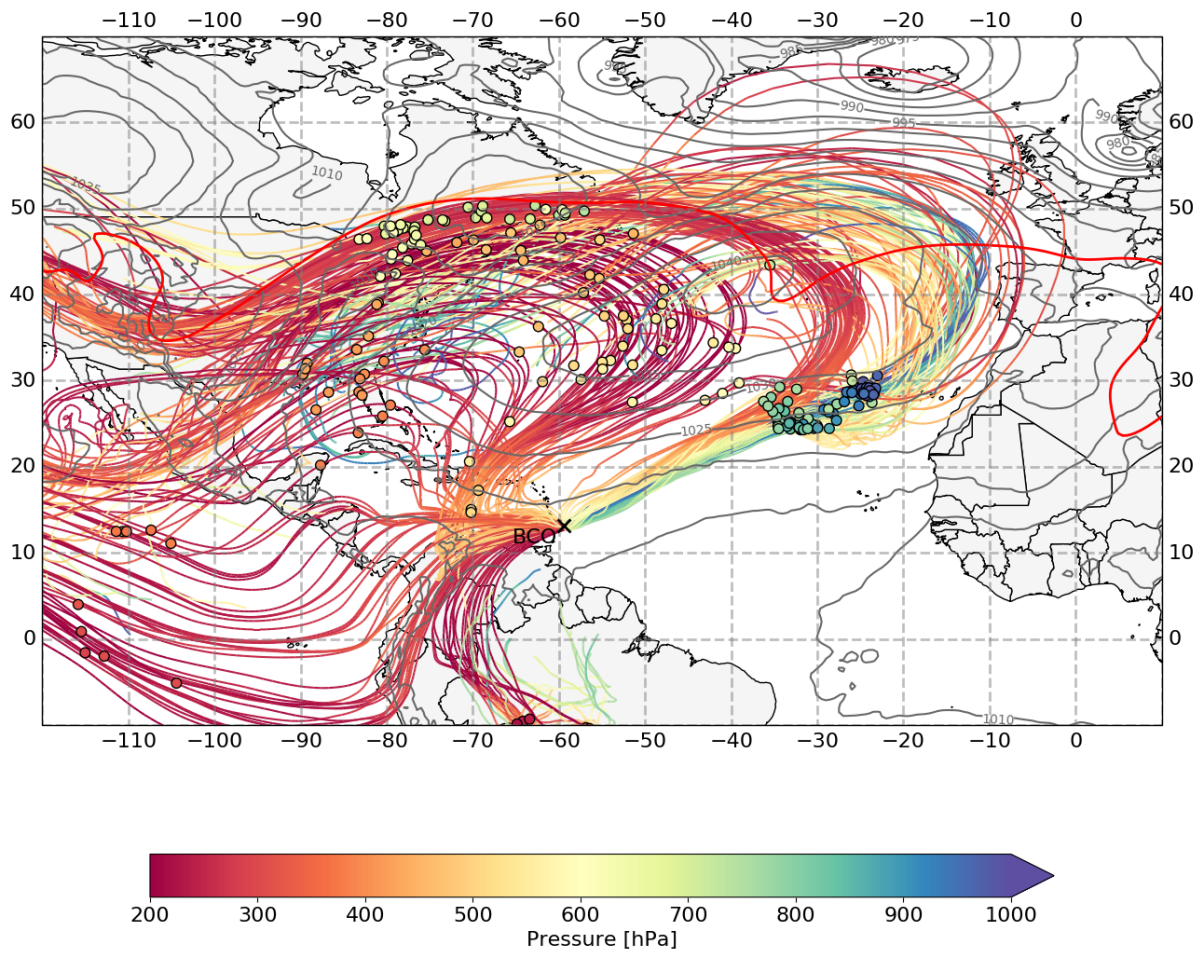


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $32 \text{ hPa (4 days)}^{-1}$

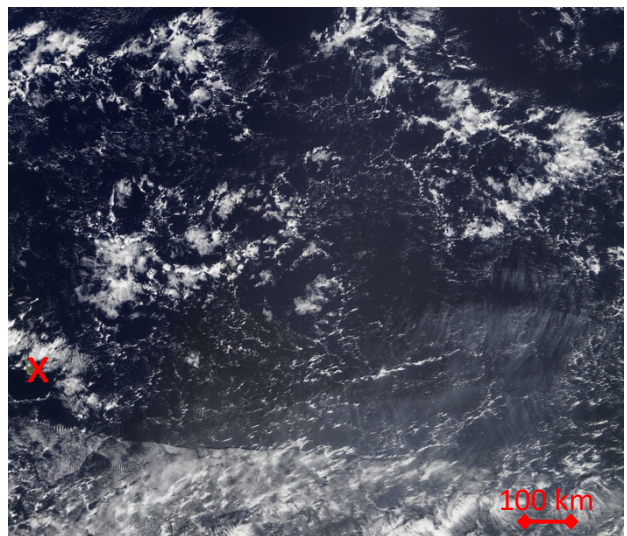
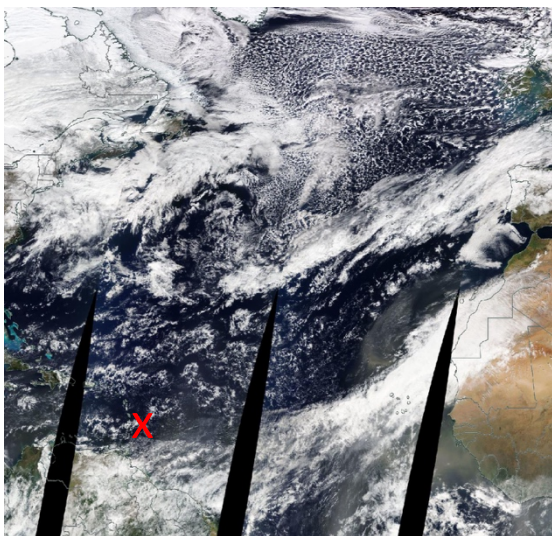


Arrival on 20180215_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180211_15

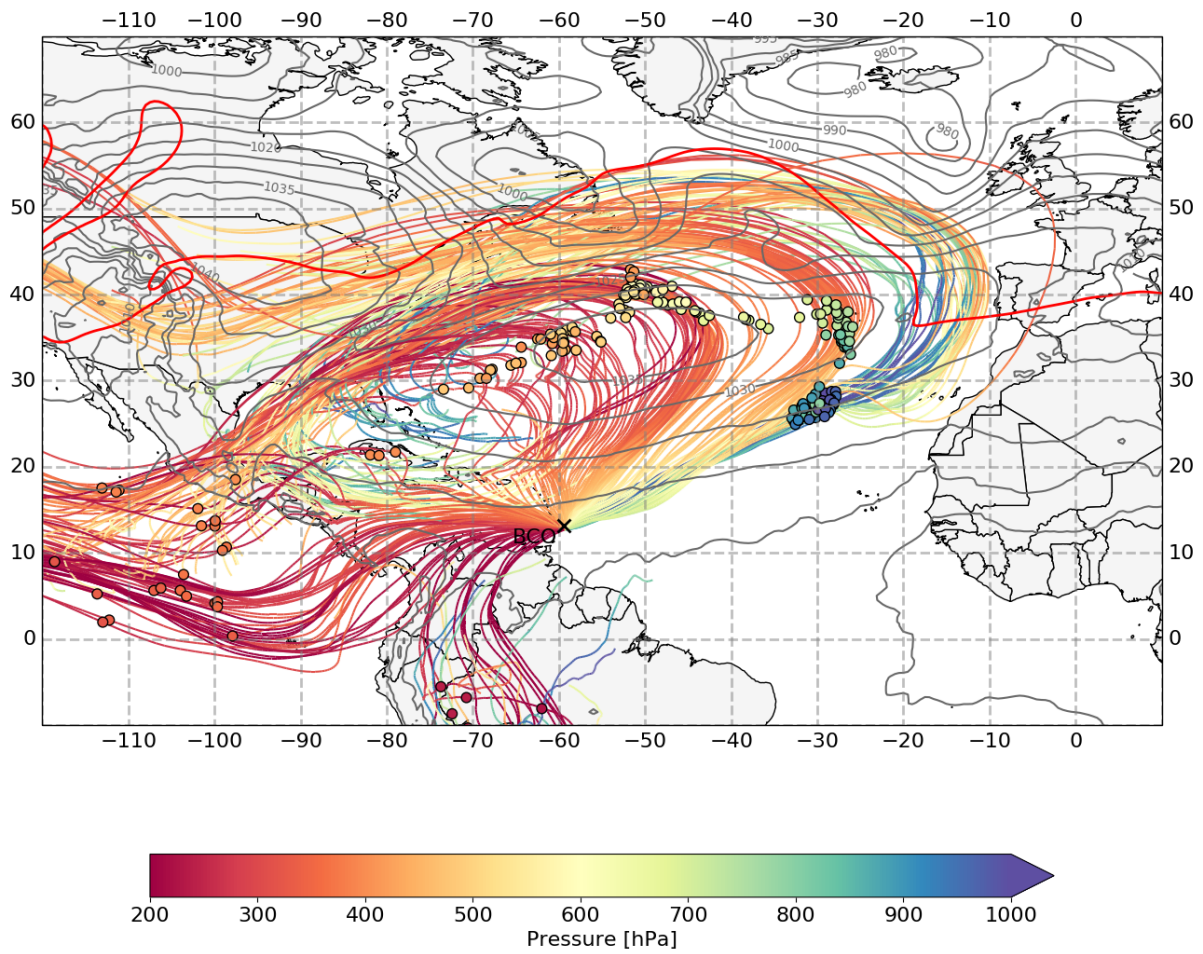


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $57 \text{ hPa (4 days)}^{-1}$

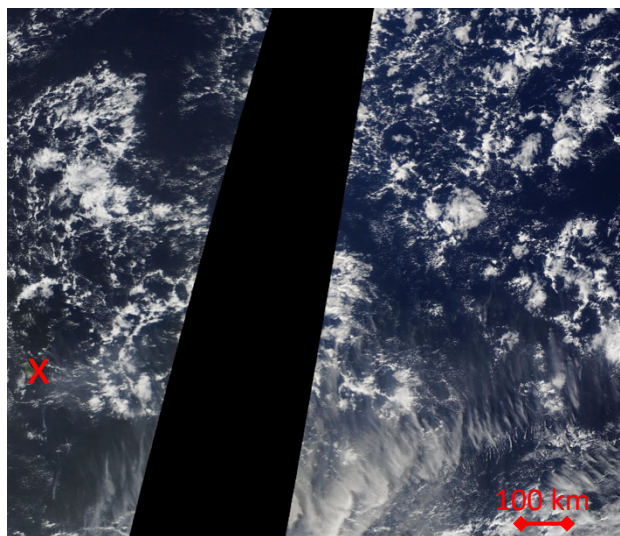
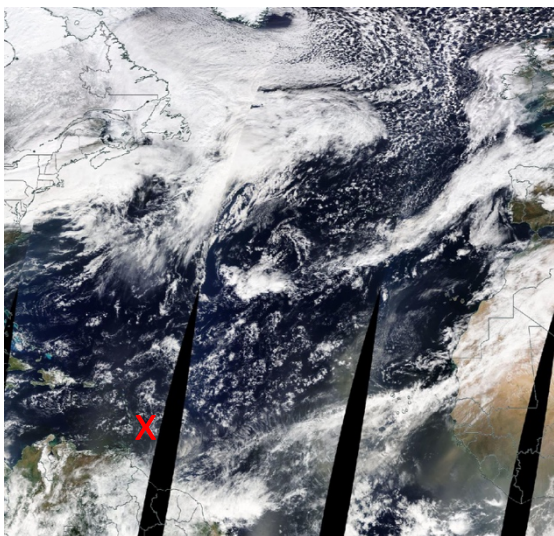


Arrival on 20180216_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180212_15

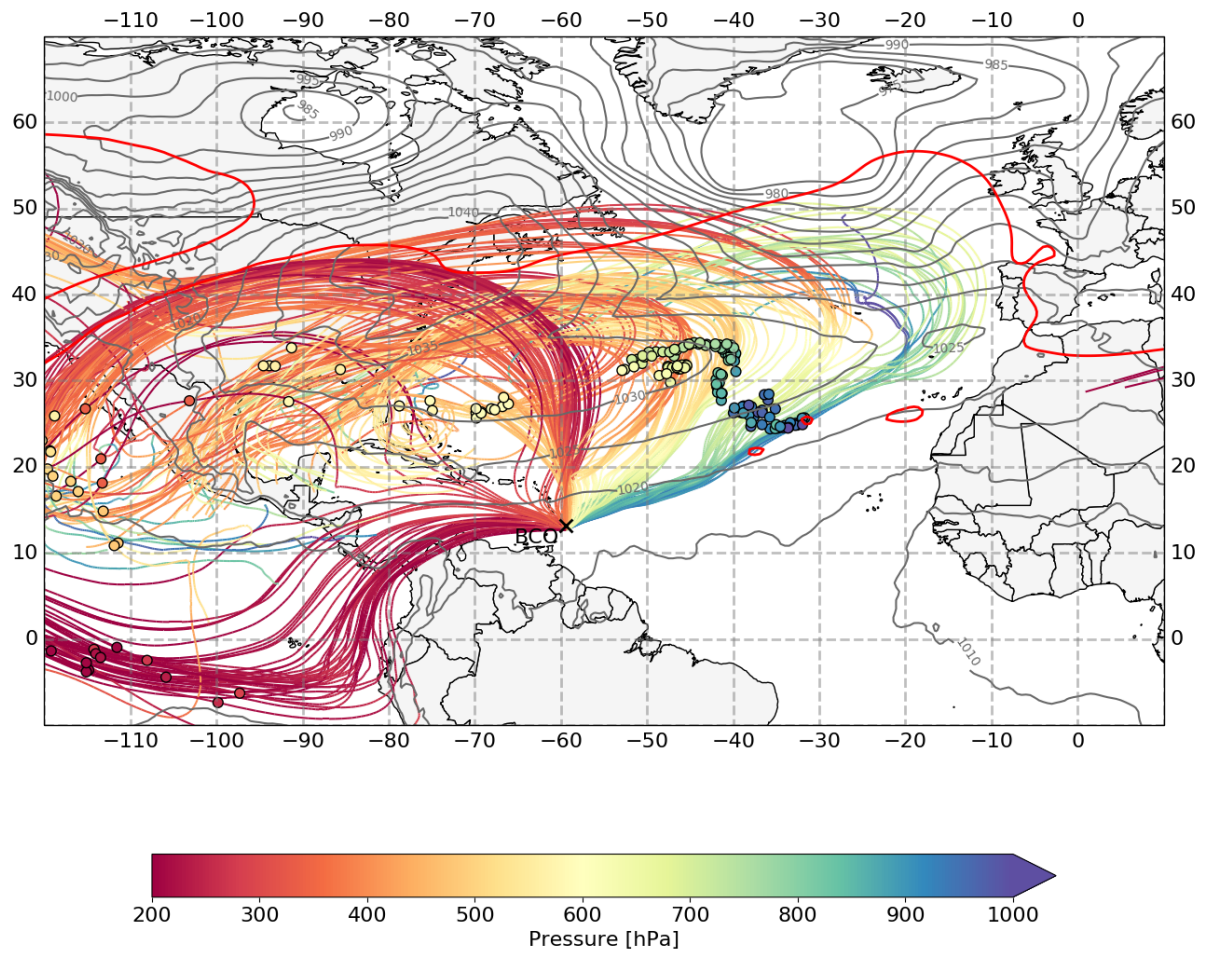


Extratropical trade wind regime

Slantwise subsidence of sub-cloud layer airmasses: $21 \text{ hPa (4 days)}^{-1}$



Arrival on 20180217_15 with colored dots, SLP (grey) and PV at 320K (red) from 20180213_15



Extratropical dry intrusion regime
Slantwise subsidence of sub-cloud layer airmasses: $102 \text{ hPa} (4 \text{ days})^{-1}$

