

Reference	Tracer	Location	Instrument	Rate of vertical motion (m day ⁻¹)	Approximate altitude(s)	Time of year	Terminology
Allen et al. (2000)	CO	Antarctica	satellite	-250 at 60° S -300 at 80° S	30-50 km average	Apr/May average, 1992	atmospheric descent
Forkman et al. (2005)	CO	NH mid-latitudes	ground-based	+250 to +450	60-95 km	Spring, 2002	mesospheric circulation
Forkman et al. (2005)	CO	NH mid-latitudes	ground-based	0 to -300	60-95 km	Autumn, 2002	mesospheric circulation
Nassar et al. (2005)	CH ₄ , H ₂ O	Arctic	satellite	-150	upper stratosphere	Feb/Mar, 2004	atmospheric descent
Nassar et al. (2005)	CH ₄ , H ₂ O	Arctic	satellite	-175	lower mesosphere	Oct 2003 to Feb 2004 average	atmospheric descent
Hauchercorne et al. (2007)	NO ₂	Arctic	satellite	from -600 in Jan, to -200 in Mar	45-70 km	20 Jan to 10 Mar, 2004	descent of NO ₂ layer
Funke et al. (2009)	CO	Arctic	satellite	-350 to 400	50-70 km	Sep/Oct, 2003	polar descent
Funke et al. (2009)	CO	Arctic	satellite	-200 to -300	40-70 km	Nov/Dec, 2003	polar descent
Funke et al. (2009)	CO	Arctic	satellite	-1200	mesosphere	after SSW, 2004	polar descent
Di Bagio et al. (2010)	CO	Arctic	ground-based	-200 to -300	descent from 58-62 km	after SSW, 2009	descent of air
Di Bagio et al. (2010), from Orsolini et al. (2010)	H ₂ O	Arctic	ground-based	-200 to -300	descent from 59 and 62 km	after SSW, 2009	descent of air
Straub et al. (2012)	H ₂ O	Arctic	ground-based	-350	52-68 km average	5 Feb to 5 Mar average, 2010	polar descent
Straub et al. (2012)	H ₂ O	Arctic	satellite	-360	52-68 km average	Jan/Feb/Mar average, 2010	polar descent
Bailey et al. (2014)	NO, H ₂ O, CH ₄	Arctic	satellite	up to -1000	40-90 km	after SSW, 2013	atmospheric descent