

Experiment type	α	Ozone observation sampling	Ozone error (%)	σ_{ob} (constant or %/minimum)	Radiance observations	Radiance error	Initial conditions
Sect. 4.1							
Truth	0.5						Unperturbed
Ozone only	0.5	Global	0	0.1 ppmv			Unperturbed
Ozone only	0.5	Random	0	0.1 ppmv			Unperturbed
Ozone only	0.5	Polar-orbiting	0	0.1 ppmv			Unperturbed
Sect. 4.2							
Truth	0.0						Unperturbed
Truth	0.5						Unperturbed
Truth	1.0						Unperturbed
Baseline	0.0	Global	0	0.1 ppmv			Perturbed
Baseline	0.5	Global	0	0.1 ppmv			Perturbed
Baseline	1.0	Global	0	0.1 ppmv			Perturbed
Ozone only	0.0	Global	0	0.1 ppmv			Perturbed
Ozone only	0.5	Global	0	0.1 ppmv			Perturbed
Ozone only	1.0	Global	0	0.1 ppmv			Perturbed
Sect. 4.3							
Ozone only	0.0	Global	0	0.1 ppmv			Perturbed
Ozone only	0.5	Random	0	0.1 ppmv			Perturbed
Ozone only	0.5	Polar-orbiting	0	0.1 ppmv			Perturbed
Sect. 4.4							
Ozone only	0.5	Global	0	0.1 ppmv			Perturbed
Ozone only	0.5	Polar-orbiting	2	2 %/0.1 ppmv			Perturbed
Ozone only	0.5	Global	2	2 %/0.1 ppmv			Perturbed
Ozone only	0.5	Global	5	5 %/0.1 ppmv			Perturbed
Ozone only	0.5	Global	10	10 %/0.1 ppmv			Perturbed
Sect. 5.1							
Baseline	0.5				All	Noisy	Perturbed
Baseline	0.5				All	Perfect	Unperturbed
Sect. 5.2							
Radiance & ozone	0.5	Global	0	0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Random	0	0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Polar-orbiting	0	0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Global	2	2 %/0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Random	2	2 %/0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Polar-orbiting	2	2 %/0.1 ppmv	All	Noisy	Perturbed
Radiance & ozone	0.5	Global	2	2 %/0.1 ppmv	All	Noisy	Perturbed