

Name	Description	Water vapour	Aerosol	Clouds
nDnC	Dust-free and cloud-free atmosphere	Observed 8–30 June 2011	None	None
nDwC	Dust-free but cloudy atmosphere	Observed 8–30 June 2011 diurnal cycle	None	ERA-I, MERRA
wDnC	Cloud-free but dusty atmosphere	Observed 8–30 June 2011 diurnal cycle	AERONET AOD scaled with CALIOP extinction	None
wDwC	Dusty and cloudy atmosphere	Observed 8–30 June 2011 diurnal cycle	AERONET AOD scaled with CALIOP extinction	ERA-I, MERRA
senDnC	Sensitivity to full range of possible AOD	Mean diurnal WV	Linear increase in AOD 0.0 to 3.0; constant AOD each time step for a given run	None
senWVwDnC	Sensitivity to full range of possible WV	Linear increase in TCWV from 10 to 40 kg m ⁻² at 2.5 kg m ⁻² interval with mean diurnal WV profile	Mean diurnal AOD	None