Authors	Specifications	Key Points	Results/findings
Stevens *et al.* -2004	Field studies (DYCOM-II, EPIC); NE and SE Pacific	ΔT_B - τ - r_e - precip. precip.-cloudiness POC-precip.	Coherent, long-lived regions of open cellular convection are coupled to the development of precipitation. The results support the idea that modulating precipitation formation, perturbation in atmospheric aerosol can affect patterns of cloudiness.
Krüger & Fritz -1961	TIROS-I, radiosonde, aircraft dropsonde; NE Bermuda, Aleutians, NE HI; Apr-60	POC vs Bernard cells Anticyclone Low clouds and inversion	Cellular patterns occur at the top of convective layer heated from below; through which there was little verical variation in wind velocity. Stabler layer was found above the region.
Bretherton *et al.* -2001	5-cm, 8-mm radars, μ-wave radiometer, buoy and GOES-East; Sept-Oct 2001; E. Pacific (EPIC)	SST-aerosol-drizzle stratocumulus-MCC inversion & subsidence 2nd IE	Entrainment of dry, warm air was the primary regulator of cloud thickness, but drizzle might inhibit turbulence and promote MCC. Less drizzle fell from cloud with a given thickness during periods of high Nc.
Garay *et al.* -2004	MISR, GOES West; E. Pacific; 11/16/2001	MCC: OC, CC, AC Misconception of AC AC & τ, AC & lifetime	Contrary to the earlier theories, AC is not a transition between open and closed cells. AC has a relatively longer lifetime and a more complex relationship to the ocean currents than OC and CC do.
Feingold *et al.* -2010	Satellite measurement, LES, ship-based lidar and radar; unspecified region and time	Heat-cell structure cooling-assymetry profile [aerosol]-cell structure precip-oscillation	Precipitation generation-dissipation causes rearrangements between different open cells; open cell system does not disappear/convert to closed-cell. High [aerosol] = closed-cell system, low [aerosol] = open-cell system.

Lu *et al.* (2009)	MASE-II, with aircraft-ship; Off-coast Monterey Bay, CA; Jul-07	Aerosol-cloud-drizzle $r_m \alpha 1/N_c$ d-N_c & adiabaticity $R_{cb} \alpha H^3/N_c$	Increased CDNC and decreased cloud top re are associated with increased sub-cloud [aerosol]. No clear d-N_c relationship is likely a consequence of averaging many different conditions, which obscures subtle effects that combine to govern d.
Liu & Daum -2002	FIRE (NE Pacific), SOCEX & ACE1 (SO), ASTEX (NE Atlantic), SCMS (FL), INDOEX, MAST	Aerosol-size dist. $r_e[\beta(\varepsilon)]$ N α ε - pollution Overestimated cooling	Increase in relative distribution (ε) negates the effect of increased N on r_e and reflectivity. 15% increase in N at N = 100 cm-3 results in -0.19 to -0.93 Wm^{-2} decrease, or 10-80% < -1.03 Wm^{-2} calculated for Twomey effect alone.
Van Zanten *et al.* -2005	Radar and RFs (DYCOMS-II), GOES-10	R-r_e relationship $R_{cb} \alpha H^3/N$ Z-R relationship r_e-T_B relationship	Flight-to-flight drizzle variability scales well with difference between 11 and 4 μm T_B. The precipitating vs non-precipitating drizzle spectra are distinguishable from drizzle N, rather than change in shape of drizzle drop size distribution.
Sorooshian *et al.* -2009	A-Train, RICO; Cloud parcel model, LES (RAMS), CloudSat CPR and MODIS; JJA 2007	$S_0 = dlnR/dlnN_d$ $S_0 = f(LWP)$ 3 regimes of LWP ΔR vs AI	Shallow clouds with lowest LWP are least susceptible since they precipitate very little, while deep clouds are progressively less susceptible due to high LWP, regardless of N_d.
Duong *et al.* -2011	LES (RAMS) based on RICO, Aircraft measurement (MASE-II), Satellite observation (A-Train).	$R \sim LWP^{x1}N_d^{x2}$ x2 - aerosol IE ΔACI - H' ACI - $r_{e,col}$ - $r_{e,top}$ ACI - χ - S_0	While wide ranges in R exist at fixed CDNC for different CLW amounts, χ and S_0 are shown to be relatively insensitive to the growth phase of the cloud for large datasets that include data representing the full spectrum of cloud lifetime. Spatial resolution of measurements is shown to influence the LWP-dependent behavior of S0 and χ.