

Dataset	Type	Variable(s)	Resolution	Years	Estimate of systematic errors	Reference
CERES-EBAF	Satellite	lw_cre, rsut, rsds, rlds, sw_cre	$1^\circ \times 1^\circ$	2001–2012	$\sim 5 \text{ W m}^{-2}$	Loeb et al. (2009, 2012)
CMAP	Merged analysis	pr	$2.5^\circ \times 2.5^\circ$	1979–2013		Xie and Arkin (1997)
CRU	Reanalysis	tas	$0.5^\circ \times 0.5^\circ$	1901–2006		Harris et al. (2014)
ERA-Interim	Reanalysis	tas, ua, va, pr, psl, LWP, IWP	$0.75^\circ \times 0.75^\circ$	1979–2014		Dee et al. (2011)
HadISST	Reanalysis	ts	$1^\circ \times 1^\circ$	1870–2014		Rayner et al. (2003)
GPCP-1DD	Satellite + gauge	pr	$1^\circ \times 1^\circ$	1996–2010		Huffman et al. (2001)
GPCP-SG	Satellite + gauge	pr	$2.5^\circ \times 2.5^\circ$	1979–2013	$0\text{--}2 \text{ mm day}^{-1}$	Adler et al. (2003), Huffman and Bolvin (2012)
MODIS-L3	Satellite	clt, IWP	$1^\circ \times 1^\circ$	2003–2014	15, 125 %	Platnick et al. (2015)
NCEP 1	Reanalysis	tas, ua, va	$2.5^\circ \times 2.5^\circ$	1948–2012		Kalnay et al. (1996)
PATMOS-x	Satellite	clt	$1^\circ \times 1^\circ$	1982–2014		Heidinger et al. (2014)
SRB	satellite	lw_cre	$1^\circ \times 1^\circ$	1984–2007		Zhang et al. (2009)
TRMM	satellite	pr	$0.25^\circ \times 0.25^\circ$	1989–2011		Huffman et al. (2007)
UWisc	satellite	LWP	$1^\circ \times 1^\circ$	1988–2007	15–30 %	O’Dell et al. (2008)