WCRP GEWEX Poster A-22

Patterns, Regularities and Direct Surface – Top-of-Atmosphere Flux Relationships in the CERES Data Sets

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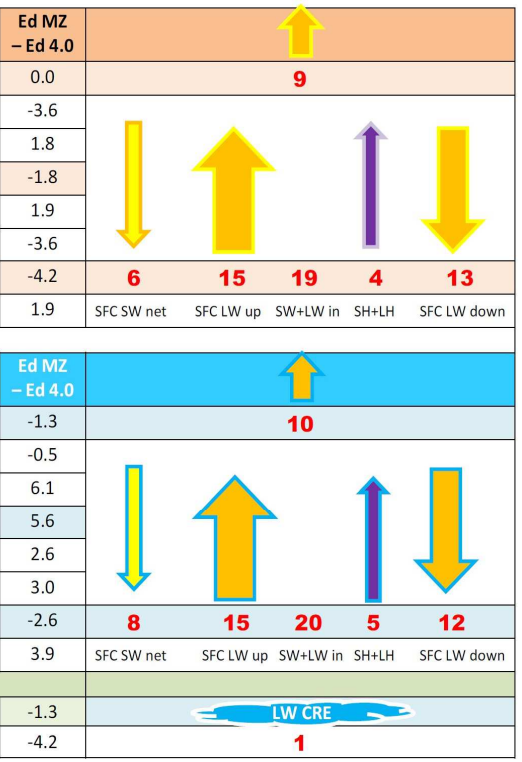
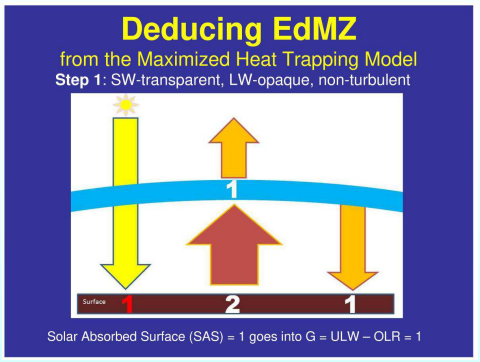
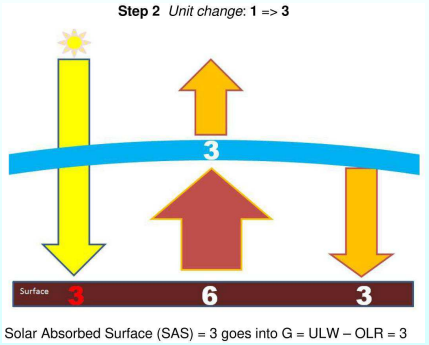
CERES measurements show there are small integer ratios in the annual global mean energy fluxes

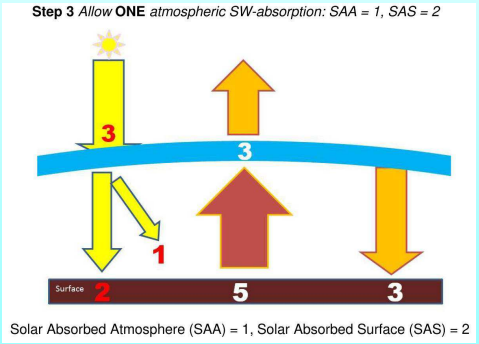
All-sky CERES EBAF	Edition 2.8	Edition 4.0	Edition MZ	UNITS N	Ed MZ – Ed 4.0
TOA LW	239.6	240.1	240.1	9	0.0
SFC SW net	162.3	163.7	160.1	6	-3.6
SFC LW down	345.2	345.0	346.8	13	1.8
SFC (SW+LW) in	507.5	508.7	506.9	19	-1.8
SFC LW up	398.3	398.3	400.2	15	1.9
SFC (SW+LW) net	109.2	110.3	106.7	4	-3.6
2OLR + LWCRE	508.1	511.1	506.9	19	-4.2
G	158.7	158.2	160.1	6	1.9

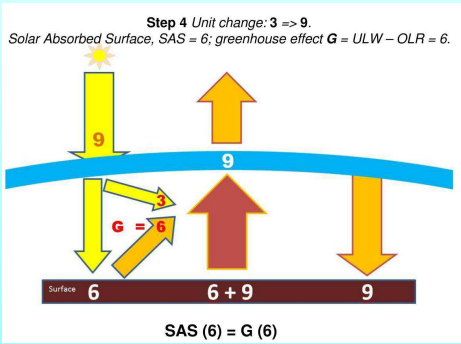
Clear-sky CERES EBAF	Edition 2.8	Edition 4.0	Edition MZ	UNITS N	Ed MZ – Ed 4.0
TOA LW	265.4	268.1	266.8	10	-1.3
SFC SW net	214.3	213.9	213.4	8	-0.5
SFC LW down	316.3	314.1	320.2	12	6.1
SFC (SW+LW) in	530.6	528.0	533.6	20	5.6
SFC LW up	398.4	397.6	400.2	15	2.6
SFC (SW+LW) net	132.2	130.4	133.4	5	3.0
2OLR	530.8	536.2	533.6	20	-2.6
G	133.0	129.5	133.4	5	3.9
LW CRE					
TOA	25.8	28.0	26.68	1	-1.3
SFC	28.9	30.9	26.68	1	-4.2

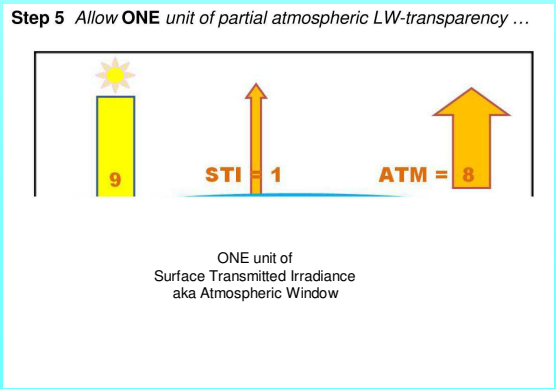


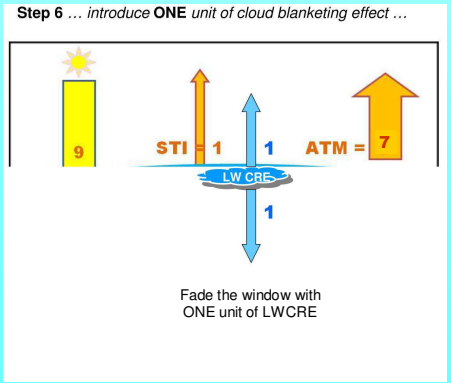


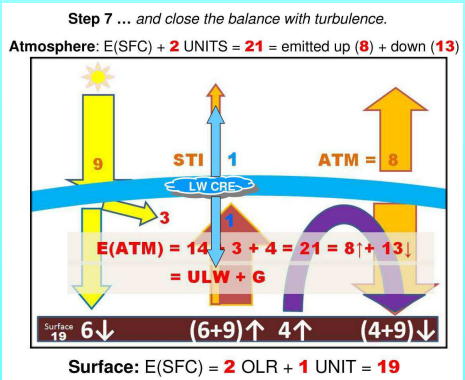


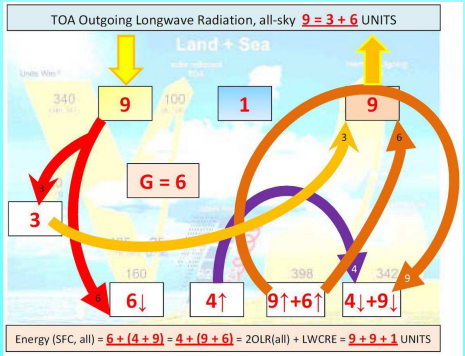












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ASR = OLR = 9 = 240, SAA = 3 = 80, SAS = 6 = 160, G = 6 = 160
SFC Net = 4 = 107, ULW = 15 = 400, DLR = 13 = 347, UNIT = 1 = 26.68 W m^{-2}