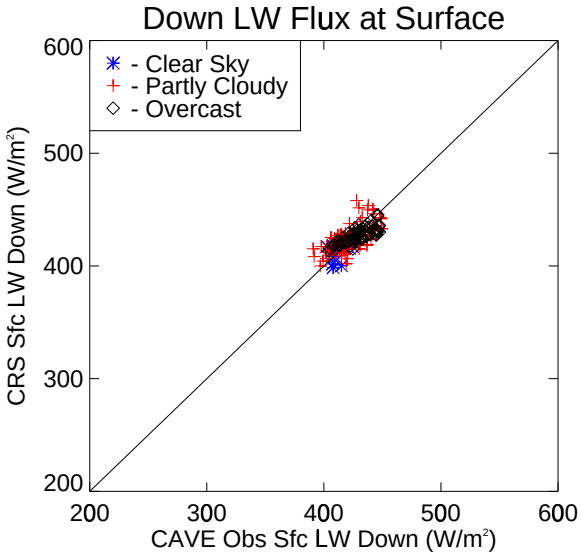
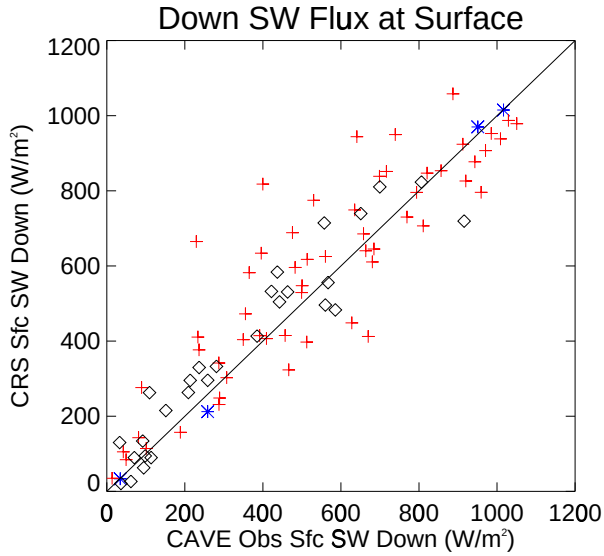
Manus/TWP (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	423.64	171.00	-0.61	9.46	9.45	8.77	9.38	9.45
LW Up Sfc	476.32	174.00	0.91	33.53	33.45	--------	--------	--------
SW Dn Sfc	483.68	89.00	-38.48	118.26	123.73	-165.48	-127.00	123.73
SW Up Sfc	100.98	91.00	75.80	52.46	92.02	--------	--------	--------
LW Up TOA	242.66	173.00	1.26	4.51	4.67	-36.71	-37.93	4.64
SW Up TOA	198.88	91.00	-1.21	15.28	15.25	116.85	118.06	15.25

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	412.43	10.00	1.61	9.14	8.82	--------	--------	0.85
LW Up Sfc	472.88	10.00	-3.15	46.62	44.34	--------	--------	--------
SW Dn Sfc	565.07	4.00	7.35	27.74	25.12	-3.86	11.20	-8.69
SW Up Sfc	108.73	4.00	83.34	80.28	108.53	--------	--------	--------
LW Up TOA	286.48	10.00	3.48	2.66	4.30	--------	--------	-0.26
SW Up TOA	75.60	4.00	3.31	3.79	4.66	--------	--------	7.39

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------
SW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------

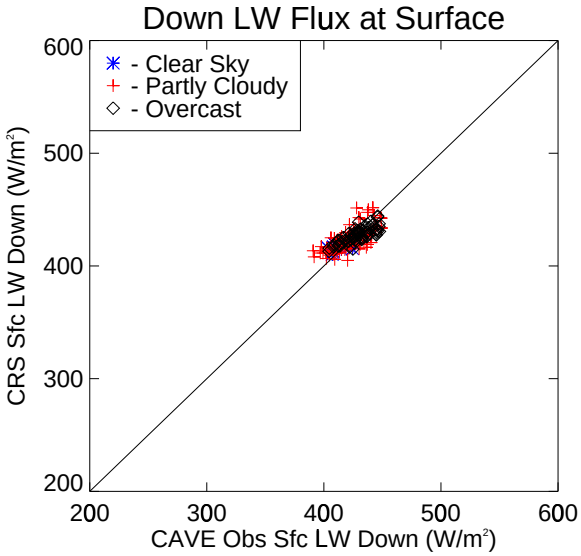
Overcast VIRS

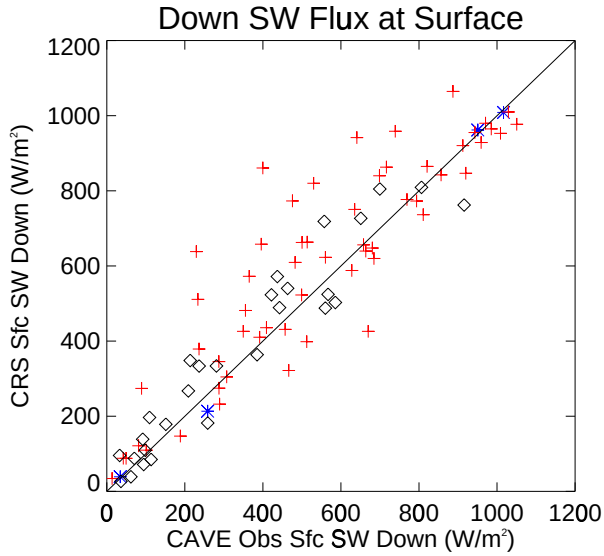
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	429.53	66.00	2.19	7.77	8.01	13.13	10.94	8.01
LW Up Sfc	464.31	67.00	-11.39	24.20	26.58	--------	--------	--------
SW Dn Sfc	341.18	28.00	-35.57	79.45	85.74	-270.05	-234.49	85.74
SW Up Sfc	78.57	28.00	58.34	53.08	78.23	--------	--------	--------
LW Up TOA	196.06	65.00	-0.62	3.89	3.91	-81.55	-80.89	3.86
SW Up TOA	307.49	28.00	0.42	10.58	10.40	226.18	225.76	10.40

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------
SW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------

Manus/TWP (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	423.64	171.00	-0.65	8.86	8.86	8.25	8.90	8.86
LW Up Sfc	476.32	174.00	1.01	33.47	33.39	--------	--------	--------
SW Dn Sfc	483.68	89.00	-47.61	118.07	126.69	-165.94	-118.33	126.69
SW Up Sfc	100.98	91.00	75.65	52.44	91.88	--------	--------	--------
LW Up TOA	242.66	173.00	1.51	8.97	9.07	-36.30	-37.76	9.03
SW Up TOA	198.88	91.00	7.48	30.95	31.68	118.44	110.96	31.68

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	412.43	10.00	-3.25	6.93	7.34	--------	--------	0.46
LW Up Sfc	472.88	10.00	-3.00	46.66	44.37	--------	--------	--------
SW Dn Sfc	565.07	4.00	9.40	25.12	23.70	-0.75	10.15	-5.30
SW Up Sfc	108.73	4.00	85.32	83.78	112.00	--------	--------	--------
LW Up TOA	286.48	10.00	6.21	5.25	7.96	--------	--------	-0.14
SW Up TOA	75.60	4.00	8.40	9.50	11.75	--------	--------	4.55

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------
SW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------

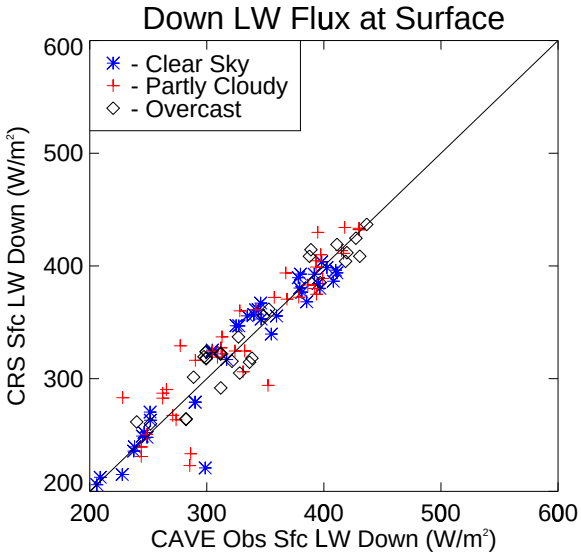
Overcast VIRS

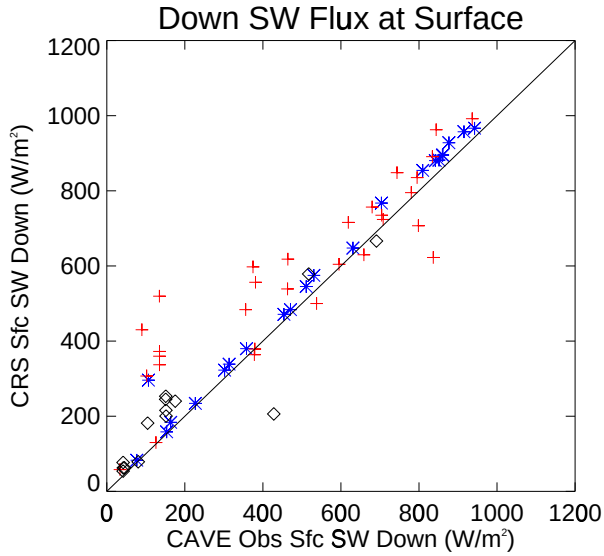
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	429.53	66.00	1.98	7.61	7.81	13.13	11.15	7.81
LW Up Sfc	464.31	67.00	-11.38	24.18	26.56	--------	--------	--------
SW Dn Sfc	341.18	28.00	-27.33	75.26	78.79	-270.05	-242.73	78.79
SW Up Sfc	78.57	28.00	58.77	52.74	78.33	--------	--------	--------
LW Up TOA	196.06	65.00	0.26	9.39	9.32	-81.40	-81.57	9.19
SW Up TOA	307.49	28.00	-7.17	29.27	29.62	226.18	233.35	29.62

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Dn Sfc	--------	--------	--------	--------	--------	--------	--------	--------
SW Up Sfc	--------	--------	--------	--------	--------	--------	--------	--------
LW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------
SW Up TOA	--------	--------	--------	--------	--------	--------	--------	--------

E01-Larned (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	334.62	111.00	-2.32	20.36	20.40	18.91	20.55	21.46
LW Up Sfc	415.98	102.00	-0.42	22.35	22.25	--------	--------	--------
SW Dn Sfc	446.91	66.00	-56.69	97.94	112.52	-175.09	-118.39	112.52
SW Up Sfc	90.70	66.00	4.20	25.06	25.22	--------	--------	--------
LW Up TOA	245.48	113.00	0.04	4.81	4.79	-24.14	-24.19	4.79
SW Up TOA	239.20	66.00	-2.49	13.96	14.07	91.29	93.78	14.07

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	325.76	39.00	-0.47	18.32	18.09	--------	--------	0.66
LW Up Sfc	433.79	35.00	6.04	10.23	11.76	--------	--------	--------
SW Dn Sfc	543.69	22.00	-35.62	37.54	51.13	-31.84	-3.79	-14.61
SW Up Sfc	109.44	22.00	6.85	19.54	20.29	--------	--------	--------
LW Up TOA	276.45	41.00	0.36	2.09	2.10	--------	--------	-0.38
SW Up TOA	145.36	22.00	0.42	0.79	0.88	--------	--------	6.34

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	380.54	5.00	4.31	5.85	6.78	--------	--------	--------
LW Up Sfc	509.92	5.00	0.90	17.23	15.44	--------	--------	--------
SW Dn Sfc	718.43	5.00	-28.31	18.08	32.60	--------	--------	--------
SW Up Sfc	131.08	5.00	5.30	15.90	15.18	--------	--------	--------
LW Up TOA	307.35	5.00	1.75	2.58	2.90	--------	--------	--------
SW Up TOA	166.40	5.00	0.04	0.52	0.47	--------	--------	--------

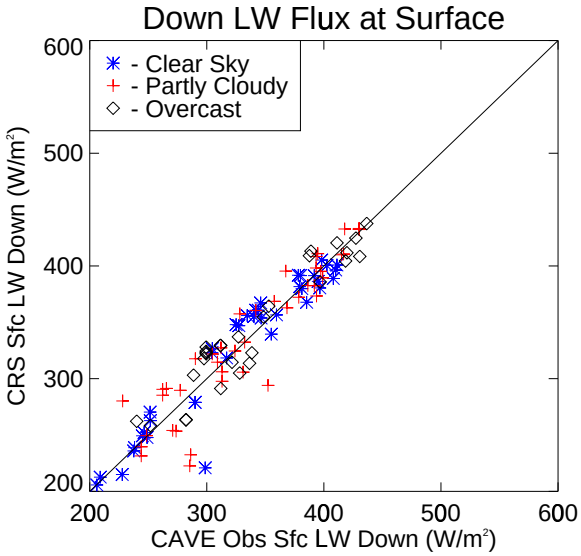
Overcast VIRS

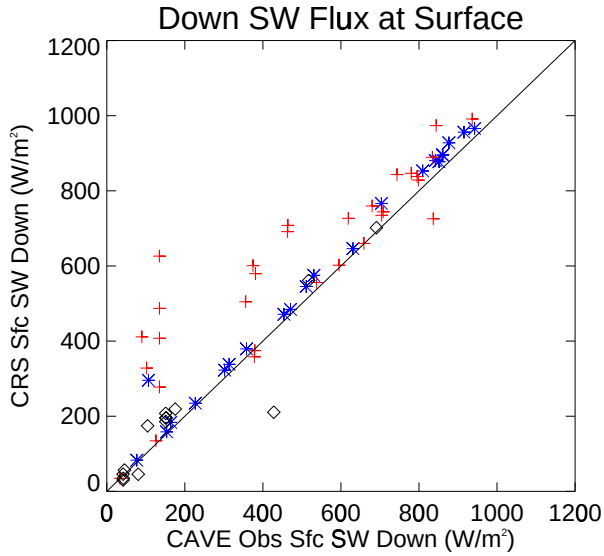
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	339.53	29.00	-2.24	16.82	16.68	40.76	43.00	16.68
LW Up Sfc	375.68	28.00	-6.13	12.15	13.41	--------	--------	--------
SW Dn Sfc	198.15	14.00	-24.86	79.84	80.85	-260.98	-236.12	80.85
SW Up Sfc	41.17	14.00	3.60	16.27	16.09	--------	--------	--------
LW Up TOA	199.61	29.00	0.35	2.87	2.85	-57.32	-57.67	2.85
SW Up TOA	304.69	14.00	-2.23	3.87	4.35	185.12	187.35	4.35

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	341.81	6.00	-7.78	15.12	15.85	53.74	61.52	15.85
LW Up Sfc	366.15	6.00	-17.94	16.22	23.26	--------	--------	--------
SW Dn Sfc	157.15	6.00	-9.71	20.61	21.17	-286.25	-276.54	21.17
SW Up Sfc	32.81	6.00	3.21	9.54	9.28	--------	--------	--------
LW Up TOA	215.71	6.00	-0.60	2.41	2.28	-43.07	-42.47	2.28
SW Up TOA	334.13	6.00	-2.18	5.38	5.37	217.84	220.01	5.37

E01-Larned (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	334.62	111.00	-1.34	19.81	19.77	18.70	19.37	20.88
LW Up Sfc	415.98	102.00	-0.66	23.54	23.44	--------	--------	--------
SW Dn Sfc	446.91	66.00	-65.90	107.27	125.20	-174.90	-109.01	125.20
SW Up Sfc	90.70	66.00	3.60	25.60	25.66	--------	--------	--------
LW Up TOA	245.48	113.00	-0.40	7.66	7.64	-24.38	-23.99	7.64
SW Up TOA	239.20	66.00	5.22	27.22	27.52	92.15	86.93	27.52

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	325.76	39.00	-1.01	18.10	17.90	--------	--------	0.66
LW Up Sfc	433.79	35.00	4.42	13.86	14.36	--------	--------	--------
SW Dn Sfc	543.69	22.00	-35.18	37.46	50.76	-31.45	-3.73	-14.54
SW Up Sfc	109.44	22.00	7.46	19.09	20.09	--------	--------	--------
LW Up TOA	276.45	41.00	-0.49	4.97	4.93	--------	--------	-0.39
SW Up TOA	145.36	22.00	1.07	2.29	2.48	--------	--------	6.34

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	380.54	5.00	3.24	6.00	6.27	--------	--------	--------
LW Up Sfc	509.92	5.00	4.13	9.44	9.40	--------	--------	--------
SW Dn Sfc	718.43	5.00	-27.67	18.03	32.03	--------	--------	--------
SW Up Sfc	131.08	5.00	4.97	16.22	15.33	--------	--------	--------
LW Up TOA	307.35	5.00	3.12	5.06	5.50	--------	--------	--------
SW Up TOA	166.40	5.00	-0.15	1.64	1.48	--------	--------	--------

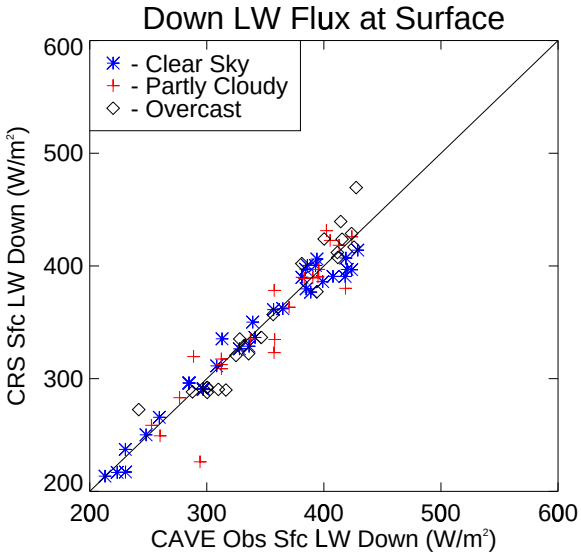
Overcast VIRS

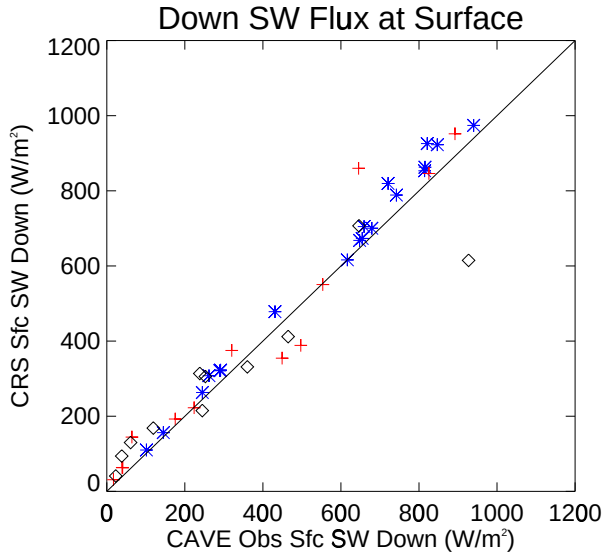
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	339.53	29.00	-3.36	17.64	17.66	40.75	44.11	17.66
LW Up Sfc	375.68	28.00	-6.14	12.15	13.42	--------	--------	--------
SW Dn Sfc	198.15	14.00	-6.52	70.85	68.58	-260.98	-254.46	68.58
SW Up Sfc	41.17	14.00	6.59	14.37	15.34	--------	--------	--------
LW Up TOA	199.61	29.00	2.97	6.85	7.36	-57.31	-60.28	7.36
SW Up TOA	304.69	14.00	-17.46	21.48	27.08	185.12	202.57	27.08

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	341.81	6.00	-11.29	14.05	17.09	53.74	65.03	17.09
LW Up Sfc	366.15	6.00	-17.99	16.20	23.29	--------	--------	--------
SW Dn Sfc	157.15	6.00	4.60	17.64	16.74	-286.26	-290.86	16.74
SW Up Sfc	32.81	6.00	5.65	5.43	7.51	--------	--------	--------
LW Up TOA	215.71	6.00	1.01	9.05	8.33	-43.07	-44.08	8.33
SW Up TOA	334.13	6.00	-14.04	25.02	26.81	217.84	231.87	26.81

E02-Hillsboro (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	346.47	79.00	1.21	16.93	16.86	21.75	20.55	16.86
LW Up Sfc	409.07	76.00	-3.87	15.27	15.65	--------	--------	--------
SW Dn Sfc	426.11	45.00	-23.48	71.80	74.78	-129.11	-105.63	74.78
SW Up Sfc	85.38	45.00	10.31	18.19	20.73	--------	--------	--------
LW Up TOA	251.67	81.00	1.18	4.02	4.16	-16.83	-18.02	4.16
SW Up TOA	213.66	45.00	-4.14	31.99	31.90	79.20	83.35	31.90

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	337.26	34.00	1.79	12.43	12.38	--------	--------	0.60
LW Up Sfc	430.58	32.00	-5.48	17.07	17.67	--------	--------	--------
SW Dn Sfc	550.77	20.00	-38.81	27.60	47.22	-62.55	23.74	-14.33
SW Up Sfc	111.43	20.00	9.35	10.78	14.06	--------	--------	--------
LW Up TOA	278.58	35.00	1.33	3.46	3.66	--------	--------	-0.37
SW Up TOA	144.75	20.00	0.46	0.89	0.98	--------	--------	5.38

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	384.67	3.00	10.70	2.96	10.97	--------	--------	--------
LW Up Sfc	505.25	3.00	-9.70	21.98	20.40	--------	--------	--------
SW Dn Sfc	755.70	3.00	-25.12	7.84	25.92	--------	--------	--------
SW Up Sfc	145.75	3.00	18.78	4.58	19.15	--------	--------	--------
LW Up TOA	304.36	3.00	1.15	3.64	3.18	--------	--------	--------
SW Up TOA	168.85	3.00	-0.16	0.36	0.34	--------	--------	--------

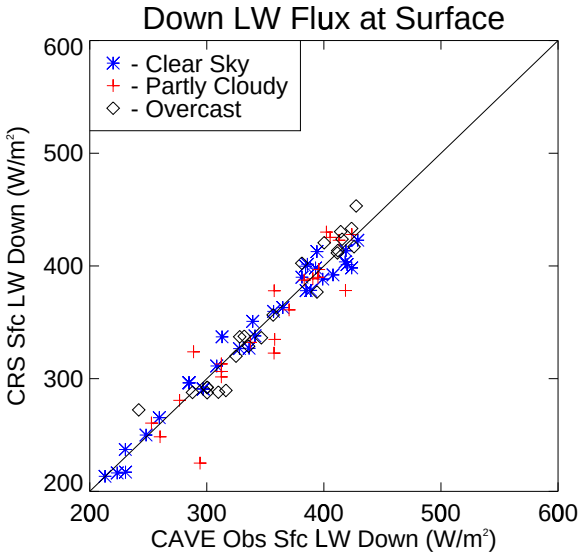
Overcast VIRS

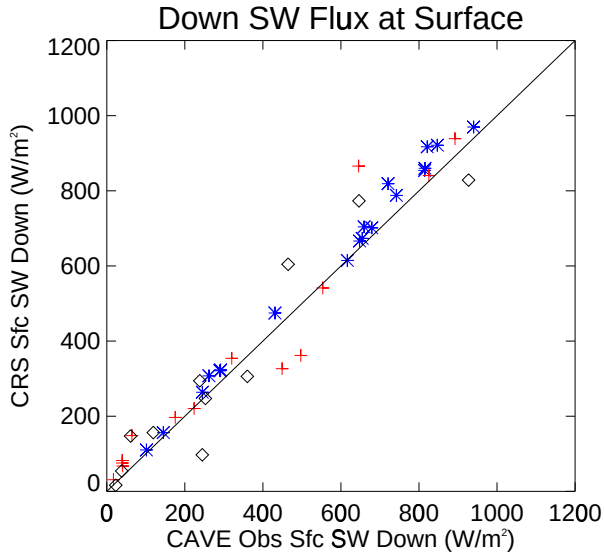
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	355.94	23.00	-1.26	17.18	16.85	46.45	47.70	16.85
LW Up Sfc	384.01	23.00	-5.93	12.34	13.44	--------	--------	--------
SW Dn Sfc	306.88	11.00	3.89	111.62	106.50	-359.05	-362.93	106.50
SW Up Sfc	58.51	11.00	10.39	26.18	27.04	--------	--------	--------
LW Up TOA	208.39	24.00	2.05	4.32	4.70	-48.64	-50.68	4.70
SW Up TOA	408.09	11.00	-24.78	60.63	62.90	259.95	284.74	62.90

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	335.48	5.00	2.60	7.49	7.19	75.03	72.43	7.19
LW Up Sfc	343.73	5.00	-11.94	12.97	16.65	--------	--------	--------
SW Dn Sfc	98.85	5.00	-48.97	18.89	51.80	-462.39	-413.42	51.80
SW Up Sfc	16.14	5.00	-7.72	5.00	8.92	--------	--------	--------
LW Up TOA	214.83	5.00	-0.61	3.33	3.04	-34.46	-33.84	3.04
SW Up TOA	457.43	5.00	-1.18	3.55	3.39	323.91	325.09	3.39

E02-Hillsboro (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	346.47	79.00	0.94	16.39	16.32	21.18	20.24	16.32
LW Up Sfc	409.07	76.00	-3.54	12.47	12.89	--------	--------	--------
SW Dn Sfc	426.11	45.00	-26.00	65.85	70.11	-128.60	-102.59	70.11
SW Up Sfc	85.38	45.00	10.52	16.55	19.46	--------	--------	--------
LW Up TOA	251.67	81.00	2.41	7.81	8.13	-16.66	-19.07	8.13
SW Up TOA	213.66	45.00	-1.76	23.33	23.14	79.89	81.64	23.14

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	337.26	34.00	0.41	11.52	11.36	--------	--------	0.58
LW Up Sfc	430.58	32.00	-4.03	10.86	11.42	--------	--------	--------
SW Dn Sfc	550.77	20.00	-37.66	26.42	45.63	-61.55	23.89	-14.24
SW Up Sfc	111.43	20.00	10.89	10.02	14.63	--------	--------	--------
LW Up TOA	278.58	35.00	1.79	7.60	7.70	--------	--------	-0.37
SW Up TOA	144.75	20.00	2.00	2.07	2.84	--------	--------	5.40

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	384.67	3.00	8.40	2.79	8.70	--------	--------	--------
LW Up Sfc	505.25	3.00	-4.44	12.55	11.17	--------	--------	--------
SW Dn Sfc	755.70	3.00	-23.54	5.74	24.00	--------	--------	--------
SW Up Sfc	145.75	3.00	19.23	4.35	19.55	--------	--------	--------
LW Up TOA	304.36	3.00	2.19	10.61	8.94	--------	--------	--------
SW Up TOA	168.85	3.00	0.36	0.35	0.46	--------	--------	--------

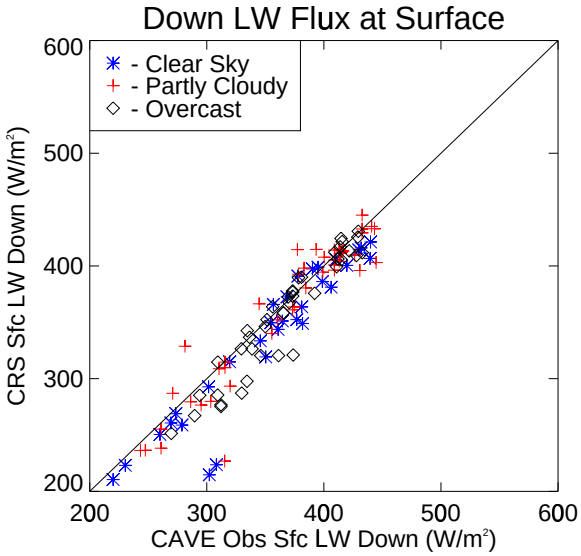
Overcast VIRS

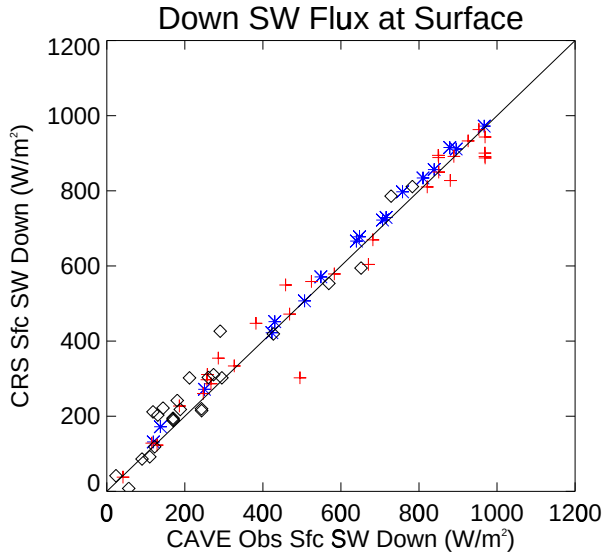
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	355.94	23.00	-0.97	15.07	14.77	46.40	47.37	14.77
LW Up Sfc	384.01	23.00	-5.91	12.37	13.47	--------	--------	--------
SW Dn Sfc	306.88	11.00	-13.64	89.61	86.52	-359.05	-345.40	86.52
SW Up Sfc	58.51	11.00	7.38	18.83	19.41	--------	--------	--------
LW Up TOA	208.39	24.00	4.97	8.68	9.85	-48.63	-53.61	9.85
SW Up TOA	408.09	11.00	-14.01	41.56	42.03	259.95	273.97	42.03

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	335.48	5.00	-0.52	6.75	6.06	74.96	75.48	6.06
LW Up Sfc	343.73	5.00	-11.99	12.93	16.65	--------	--------	--------
SW Dn Sfc	98.85	5.00	-25.46	38.39	42.74	-462.39	-436.93	42.74
SW Up Sfc	16.14	5.00	-3.86	6.03	6.63	--------	--------	--------
LW Up TOA	214.83	5.00	1.24	9.33	8.44	-34.44	-35.68	8.44
SW Up TOA	457.43	5.00	-19.71	21.66	27.64	323.91	343.62	27.64

E03-LeRoy (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.60	115.00	9.84	20.11	22.31	30.81	20.97	22.31
LW Up Sfc	415.40	110.00	-1.82	12.51	12.59	--------	--------	--------
SW Dn Sfc	475.01	72.00	-12.38	47.08	48.36	-144.48	-132.10	48.36
SW Up Sfc	90.89	72.00	12.95	19.94	23.66	--------	--------	--------
LW Up TOA	244.01	117.00	0.52	3.18	3.21	-25.83	-26.36	3.21
SW Up TOA	250.41	72.00	1.58	9.46	9.52	107.41	105.83	9.52

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	353.03	31.00	16.30	21.91	27.02	--------	--------	0.64
LW Up Sfc	437.62	27.00	-1.73	12.78	12.66	--------	--------	--------
SW Dn Sfc	604.39	17.00	-19.70	11.78	22.77	-38.88	19.18	-14.47
SW Up Sfc	111.55	17.00	8.29	18.23	19.53	--------	--------	--------
LW Up TOA	277.79	32.00	0.17	1.99	1.96	--------	--------	-0.37
SW Up TOA	147.30	17.00	0.37	0.71	0.78	--------	--------	5.68

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	423.99	3.00	12.02	6.45	13.13	--------	--------	--------
LW Up Sfc	493.77	3.00	-9.35	23.90	21.64	--------	--------	--------
SW Dn Sfc	610.87	3.00	-12.51	10.87	15.34	--------	--------	--------
SW Up Sfc	123.73	3.00	8.68	8.88	11.31	--------	--------	--------
LW Up TOA	304.42	3.00	-0.06	0.42	0.35	--------	--------	--------
SW Up TOA	158.86	3.00	0.09	0.26	0.23	--------	--------	--------

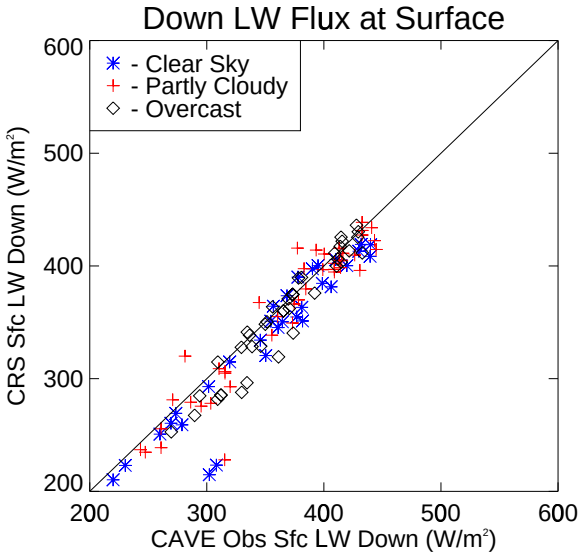
Overcast VIRS

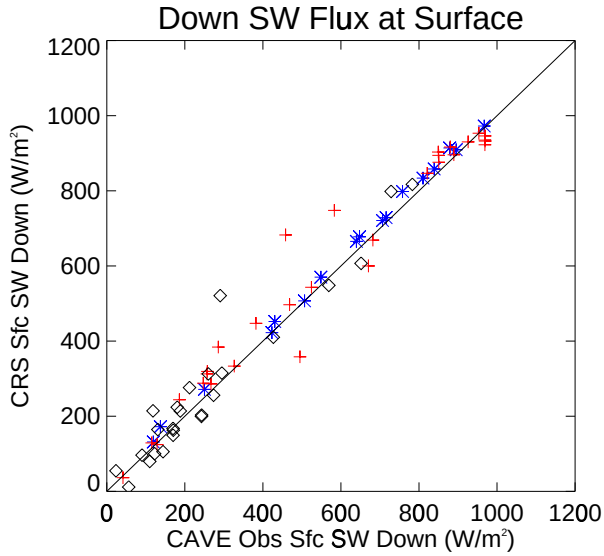
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	366.16	41.00	9.70	16.36	18.85	48.07	38.37	18.85
LW Up Sfc	391.57	41.00	-3.41	13.05	13.33	--------	--------	--------
SW Dn Sfc	266.08	25.00	-24.36	46.96	52.06	-332.10	-307.75	52.06
SW Up Sfc	54.64	25.00	9.08	15.45	17.65	--------	--------	--------
LW Up TOA	198.10	41.00	1.12	3.30	3.45	-64.60	-65.72	3.45
SW Up TOA	390.54	25.00	3.78	6.95	7.79	250.31	246.53	7.79

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	377.58	16.00	4.99	11.40	12.11	50.47	45.48	12.11
LW Up Sfc	399.96	16.00	-11.60	13.16	17.23	--------	--------	--------
SW Dn Sfc	192.27	16.00	-28.43	53.03	58.69	-421.76	-393.33	58.69
SW Up Sfc	38.75	16.00	4.14	11.41	11.80	--------	--------	--------
LW Up TOA	184.94	16.00	-0.38	2.18	2.15	-82.98	-82.60	2.15
SW Up TOA	457.17	16.00	3.95	8.04	8.72	316.74	312.79	8.72

E03-LeRoy (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.60	115.00	10.19	19.03	21.51	30.56	20.37	21.51
LW Up Sfc	413.56	112.00	-1.30	13.52	13.52	--------	--------	--------
SW Dn Sfc	475.01	72.00	-19.00	55.21	58.02	-144.27	-125.26	58.02
SW Up Sfc	90.89	72.00	13.31	19.31	23.34	--------	--------	--------
LW Up TOA	244.01	117.00	0.35	5.96	5.94	-25.82	-26.17	5.94
SW Up TOA	250.41	72.00	7.37	24.06	25.00	108.58	101.22	25.00

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	353.03	31.00	16.04	21.81	26.79	--------	--------	0.64
LW Up Sfc	432.96	28.00	-2.95	10.11	10.36	--------	--------	--------
SW Dn Sfc	604.39	17.00	-19.51	11.80	22.62	-38.70	19.20	-14.42
SW Up Sfc	111.55	17.00	9.28	17.91	19.70	--------	--------	--------
LW Up TOA	277.79	32.00	-0.35	3.97	3.92	--------	--------	-0.37
SW Up TOA	147.30	17.00	1.31	1.42	1.90	--------	--------	5.69

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	423.99	3.00	11.38	6.24	12.47	--------	--------	--------
LW Up Sfc	493.77	3.00	-8.36	9.18	11.23	--------	--------	--------
SW Dn Sfc	610.87	3.00	-11.97	10.80	14.87	--------	--------	--------
SW Up Sfc	123.73	3.00	9.46	9.10	12.03	--------	--------	--------
LW Up TOA	304.42	3.00	0.30	3.22	2.65	--------	--------	--------
SW Up TOA	158.86	3.00	0.83	0.53	0.94	--------	--------	--------

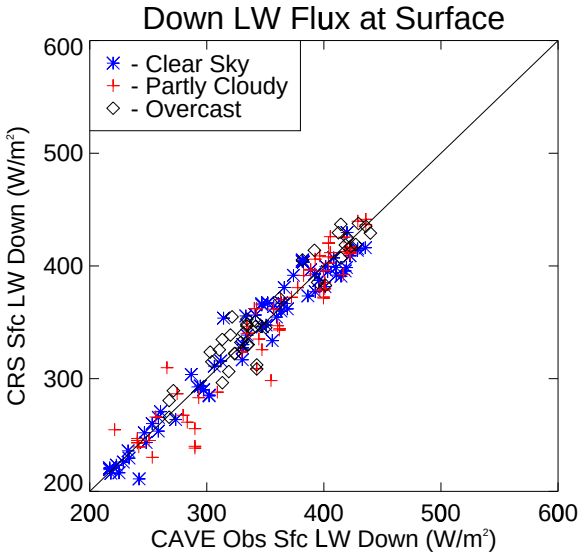
Overcast VIRS

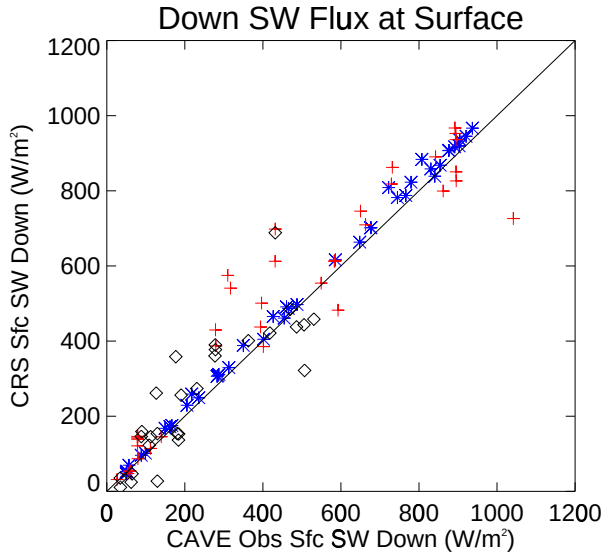
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	366.16	41.00	8.14	14.66	16.61	48.05	39.91	16.61
LW Up Sfc	391.57	41.00	-3.43	13.02	13.31	--------	--------	--------
SW Dn Sfc	266.08	25.00	-14.26	60.22	60.70	-332.11	-317.84	60.70
SW Up Sfc	54.64	25.00	10.74	15.18	18.34	--------	--------	--------
LW Up TOA	198.10	41.00	1.14	7.49	7.48	-64.60	-65.73	7.48
SW Up TOA	390.54	25.00	-4.98	27.68	27.58	250.31	255.30	27.58

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	377.58	16.00	2.43	10.08	10.05	50.45	48.03	10.05
LW Up Sfc	399.96	16.00	-11.65	13.10	17.22	--------	--------	--------
SW Dn Sfc	192.27	16.00	-17.58	71.23	71.17	-421.76	-404.18	71.17
SW Up Sfc	38.75	16.00	5.88	12.82	13.74	--------	--------	--------
LW Up TOA	184.94	16.00	-1.88	7.01	7.04	-82.97	-81.09	7.04
SW Up TOA	457.17	16.00	-4.37	31.81	31.11	316.74	321.11	31.11

E04-Plevna (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	347.91	188.00	1.11	16.05	16.04	17.24	15.75	16.81
LW Up Sfc	423.08	172.00	0.05	17.38	17.33	--------	--------	--------
SW Dn Sfc	411.96	111.00	-29.49	75.72	80.94	-143.07	-113.58	80.94
SW Up Sfc	74.15	113.00	-4.12	14.84	15.34	--------	--------	--------
LW Up TOA	250.35	190.00	-0.43	4.06	4.07	-22.00	-21.57	4.07
SW Up TOA	228.18	113.00	2.65	9.38	9.71	90.66	88.01	9.71

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	335.67	77.00	0.41	13.63	13.55	--------	--------	0.55
LW Up Sfc	441.17	68.00	5.62	18.51	19.22	--------	--------	--------
SW Dn Sfc	498.72	44.00	-22.75	17.92	28.83	-50.64	27.89	-13.23
SW Up Sfc	91.07	46.00	-5.33	11.31	12.39	--------	--------	--------
LW Up TOA	277.27	79.00	-0.33	3.05	3.05	--------	--------	-0.33
SW Up TOA	137.11	46.00	0.55	0.78	0.95	--------	--------	5.57

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	339.81	5.00	14.15	8.46	16.04	--------	--------	0.49
LW Up Sfc	460.79	5.00	12.30	10.88	15.68	--------	--------	--------
SW Dn Sfc	639.55	5.00	-19.35	6.72	20.26	-9.73	-10.24	-11.70
SW Up Sfc	114.88	5.00	0.59	10.73	9.61	--------	--------	--------
LW Up TOA	292.13	5.00	-0.39	3.21	2.90	--------	--------	-0.38
SW Up TOA	157.46	5.00	0.11	0.12	0.15	--------	--------	4.03

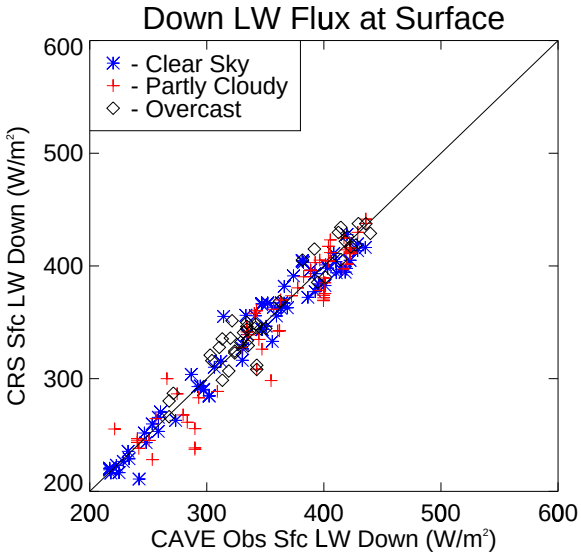
Overcast VIRS

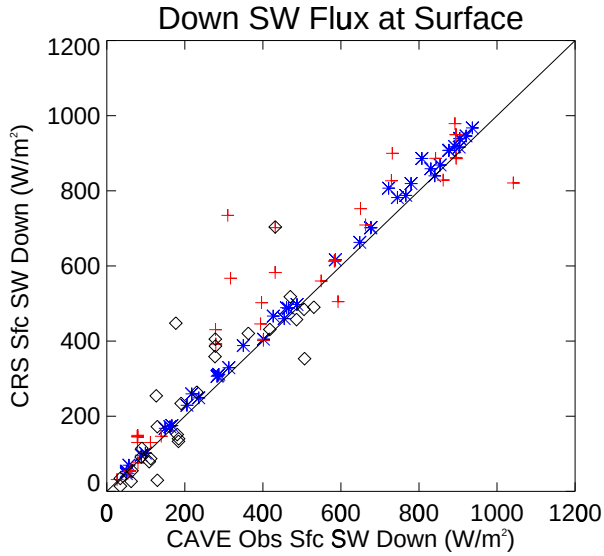
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	354.27	41.00	-3.78	14.83	15.12	38.19	41.97	15.12
LW Up Sfc	389.05	41.00	-10.45	14.02	17.35	--------	--------	--------
SW Dn Sfc	238.37	28.00	-20.56	89.14	89.91	-372.79	-352.23	89.91
SW Up Sfc	41.07	28.00	-1.56	14.52	14.34	--------	--------	--------
LW Up TOA	193.24	41.00	0.48	2.99	2.99	-70.45	-70.93	2.99
SW Up TOA	424.56	28.00	1.36	6.26	6.30	277.73	276.37	6.30

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	369.15	13.00	-3.32	11.21	11.27	53.80	57.12	11.27
LW Up Sfc	387.53	13.00	-20.58	13.23	24.19	--------	--------	--------
SW Dn Sfc	132.25	13.00	-27.38	77.78	79.59	-517.42	-490.04	79.59
SW Up Sfc	21.65	13.00	-3.86	11.59	11.78	--------	--------	--------
LW Up TOA	201.96	13.00	-0.83	2.26	2.32	-62.94	-62.11	2.32
SW Up TOA	540.88	13.00	1.69	8.67	8.50	390.23	388.54	8.50

E04-Plevna (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	347.91	188.00	1.64	15.91	15.96	17.21	15.20	16.73
LW Up Sfc	422.39	173.00	-2.41	17.07	17.19	--------	--------	--------
SW Dn Sfc	411.96	111.00	-35.21	79.21	86.36	-143.06	-107.85	86.36
SW Up Sfc	74.15	113.00	-3.46	14.37	14.72	--------	--------	--------
LW Up TOA	250.35	190.00	-1.63	6.25	6.44	-22.65	-21.02	6.44
SW Up TOA	228.18	113.00	8.42	17.81	19.63	92.06	83.64	19.63

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	335.67	77.00	0.42	13.69	13.61	--------	--------	0.55
LW Up Sfc	439.17	69.00	0.23	17.27	17.14	--------	--------	--------
SW Dn Sfc	498.72	44.00	-22.83	17.98	28.94	-50.70	27.87	-13.18
SW Up Sfc	91.07	46.00	-4.27	11.42	12.07	--------	--------	--------
LW Up TOA	277.27	79.00	-1.65	5.23	5.45	--------	--------	-0.35
SW Up TOA	137.11	46.00	1.55	2.07	2.57	--------	--------	5.59

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	339.81	5.00	14.11	8.36	15.97	--------	--------	0.50
LW Up Sfc	460.79	5.00	9.86	18.27	19.09	--------	--------	--------
SW Dn Sfc	639.55	5.00	-19.38	6.90	20.34	-9.88	-10.25	-11.70
SW Up Sfc	114.88	5.00	1.29	11.26	10.15	--------	--------	--------
LW Up TOA	292.13	5.00	-1.02	3.84	3.58	--------	--------	-0.38
SW Up TOA	157.46	5.00	0.74	0.84	1.06	--------	--------	4.04

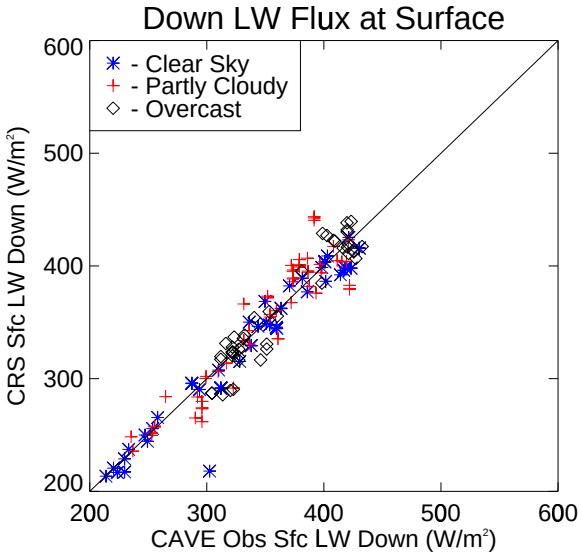
Overcast VIRS

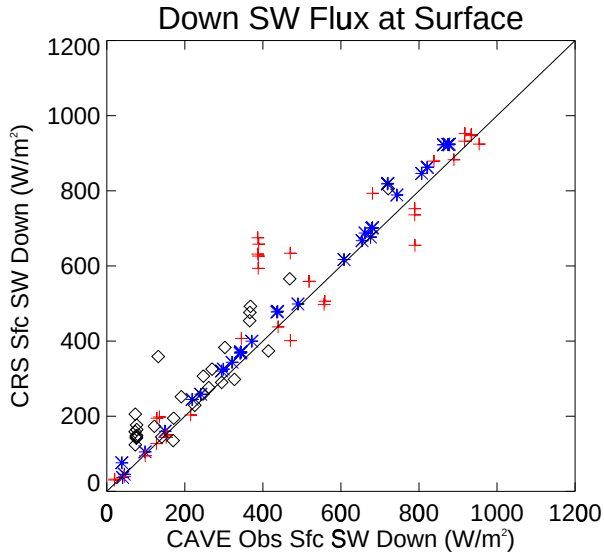
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	354.27	41.00	-3.63	14.05	14.35	38.18	41.81	14.35
LW Up Sfc	389.05	41.00	-10.44	14.03	17.35	--------	--------	--------
SW Dn Sfc	238.37	28.00	-23.66	94.08	95.36	-372.78	-349.13	95.36
SW Up Sfc	41.07	28.00	-2.03	14.80	14.68	--------	--------	--------
LW Up TOA	193.24	41.00	-0.34	6.76	6.69	-70.43	-70.09	6.69
SW Up TOA	424.56	28.00	3.87	23.73	23.62	277.73	273.86	23.62

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	369.15	13.00	-4.20	9.26	9.84	53.80	58.01	9.84
LW Up Sfc	387.53	13.00	-20.59	13.22	24.19	--------	--------	--------
SW Dn Sfc	132.25	13.00	-15.04	94.89	92.40	-517.42	-502.38	92.40
SW Up Sfc	21.65	13.00	-1.78	14.39	13.94	--------	--------	--------
LW Up TOA	201.96	13.00	-0.62	4.94	4.78	-62.93	-62.31	4.78
SW Up TOA	540.88	13.00	-7.81	28.21	28.20	390.23	398.04	28.20

E05-Halstead (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	348.47	155.00	2.10	18.33	18.39	23.72	21.20	19.14
LW Up Sfc	411.55	148.00	-6.06	15.83	16.90	--------	--------	--------
SW Dn Sfc	414.59	98.00	-43.86	69.23	81.66	-166.93	-123.07	81.66
SW Up Sfc	80.53	98.00	6.79	16.83	18.07	--------	--------	--------
LW Up TOA	250.43	164.00	0.75	3.18	3.25	-20.83	-21.58	3.25
SW Up TOA	231.44	98.00	-0.65	13.97	13.92	97.45	98.10	13.92

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	335.23	52.00	7.13	15.66	17.06	--------	--------	0.56
LW Up Sfc	427.94	49.00	-8.46	19.87	21.41	--------	--------	--------
SW Dn Sfc	508.60	35.00	-31.88	23.31	39.29	-53.80	21.93	-13.31
SW Up Sfc	98.55	35.00	7.25	8.78	11.29	--------	--------	--------
LW Up TOA	279.85	60.00	1.22	3.11	3.32	--------	--------	-0.34
SW Up TOA	133.20	35.00	0.35	0.69	0.77	--------	--------	5.67

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	329.91	5.00	19.40	2.37	19.52	--------	--------	0.88
LW Up Sfc	425.34	5.00	0.28	12.41	11.10	--------	--------	--------
SW Dn Sfc	405.22	5.00	-24.06	6.29	24.71	-14.74	-12.11	-17.03
SW Up Sfc	80.46	5.00	10.61	6.52	12.11	--------	--------	--------
LW Up TOA	277.03	5.00	0.67	2.30	2.16	--------	--------	-0.28
SW Up TOA	117.88	5.00	0.58	0.39	0.67	--------	--------	9.95

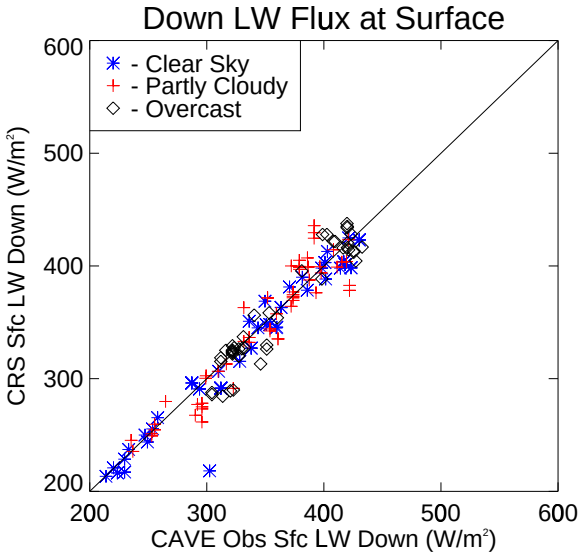
Overcast VIRS

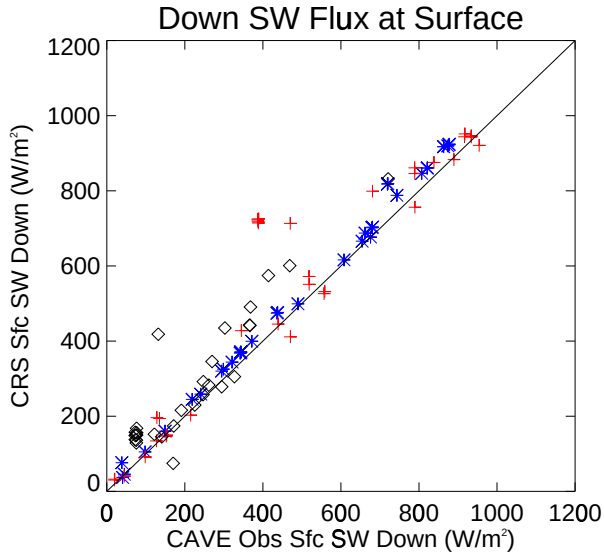
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.41	45.00	1.77	15.35	15.28	49.06	47.29	15.28
LW Up Sfc	386.38	45.00	-8.96	13.17	15.80	--------	--------	--------
SW Dn Sfc	223.57	29.00	-59.41	56.60	81.37	-403.26	-343.85	81.37
SW Up Sfc	43.11	29.00	-0.35	13.99	13.75	--------	--------	--------
LW Up TOA	201.44	45.00	0.72	2.71	2.77	-60.64	-61.36	2.77
SW Up TOA	410.56	29.00	-3.18	23.08	22.90	271.84	275.02	22.90

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	347.03	18.00	-0.54	11.61	11.30	61.82	62.37	11.30
LW Up Sfc	367.49	18.00	-13.49	12.36	18.06	--------	--------	--------
SW Dn Sfc	156.66	18.00	-67.25	55.89	86.45	-430.54	-363.29	86.45
SW Up Sfc	29.14	18.00	-3.70	11.84	12.09	--------	--------	--------
LW Up TOA	198.35	18.00	-0.25	1.84	1.81	-58.93	-58.68	1.81
SW Up TOA	424.11	18.00	1.51	4.61	4.73	294.06	292.55	4.73

E05-Halstead (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	348.47	155.00	3.23	17.04	17.29	23.41	19.76	18.10
LW Up Sfc	411.55	148.00	-7.08	14.00	15.64	--------	--------	--------
SW Dn Sfc	414.59	98.00	-54.19	83.59	99.26	-166.56	-112.38	99.26
SW Up Sfc	80.53	98.00	6.15	17.70	18.66	--------	--------	--------
LW Up TOA	250.43	164.00	0.81	7.27	7.30	-21.00	-21.82	7.30
SW Up TOA	231.44	98.00	7.88	22.26	23.50	98.38	90.50	23.50

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	335.23	52.00	6.30	15.24	16.36	--------	--------	0.56
LW Up Sfc	427.94	49.00	-10.84	14.54	18.01	--------	--------	--------
SW Dn Sfc	508.60	35.00	-31.20	22.66	38.37	-53.21	22.01	-13.23
SW Up Sfc	98.55	35.00	8.56	8.57	12.03	--------	--------	--------
LW Up TOA	279.85	60.00	0.84	6.28	6.28	--------	--------	-0.35
SW Up TOA	133.20	35.00	1.64	1.82	2.43	--------	--------	5.69

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	329.91	5.00	19.03	3.31	19.26	--------	--------	0.87
LW Up Sfc	425.34	5.00	-5.56	5.71	7.55	--------	--------	--------
SW Dn Sfc	405.22	5.00	-23.91	6.89	24.69	-14.83	-12.14	-16.85
SW Up Sfc	80.46	5.00	13.16	5.58	14.07	--------	--------	--------
LW Up TOA	277.03	5.00	-0.75	4.30	3.92	--------	--------	-0.30
SW Up TOA	117.88	5.00	3.01	1.45	3.27	--------	--------	9.99

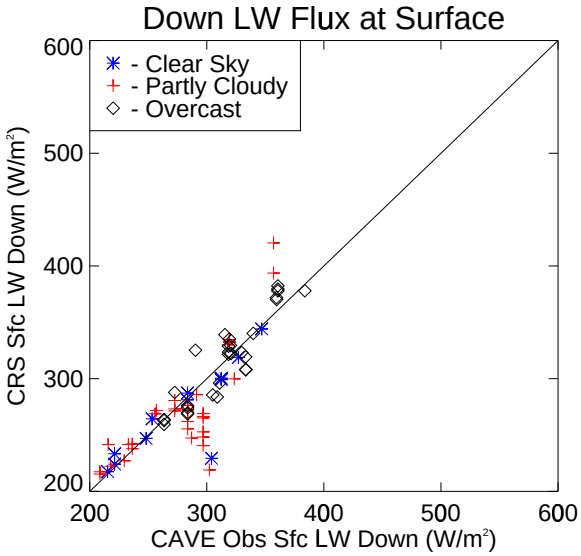
Overcast VIRS

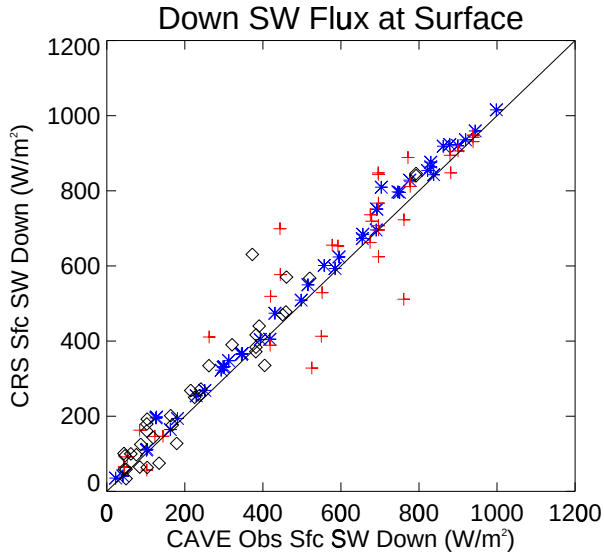
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.41	45.00	2.43	15.20	15.23	49.06	46.63	15.23
LW Up Sfc	386.38	45.00	-8.94	13.18	15.81	--------	--------	--------
SW Dn Sfc	223.57	29.00	-63.37	69.10	92.88	-403.26	-339.88	92.88
SW Up Sfc	43.11	29.00	-1.17	15.67	15.44	--------	--------	--------
LW Up TOA	201.44	45.00	2.00	9.16	9.27	-60.65	-62.65	9.27
SW Up TOA	410.56	29.00	-1.11	23.50	23.11	271.84	272.95	23.11

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	347.03	18.00	-0.27	10.98	10.67	61.83	62.11	10.67
LW Up Sfc	367.49	18.00	-13.48	12.35	18.05	--------	--------	--------
SW Dn Sfc	156.66	18.00	-61.12	73.79	94.22	-430.54	-369.42	94.22
SW Up Sfc	29.14	18.00	-2.81	13.58	13.49	--------	--------	--------
LW Up TOA	198.35	18.00	-1.28	8.92	8.76	-58.95	-57.68	8.76
SW Up TOA	424.11	18.00	-4.57	24.86	24.58	294.06	298.63	24.58

E06-Towanda (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	294.48	78.00	3.74	23.11	23.26	38.11	34.46	23.12
LW Up Sfc	406.52	211.00	-0.01	13.99	13.96	--------	--------	--------
SW Dn Sfc	447.68	120.00	-27.75	61.72	67.44	-149.11	-121.36	67.44
SW Up Sfc	90.81	120.00	15.81	19.10	24.74	--------	--------	--------
LW Up TOA	244.41	222.00	-0.35	3.96	3.96	-23.70	-23.34	3.96
SW Up TOA	234.95	120.00	1.25	13.22	13.22	98.07	96.83	13.22

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	280.09	13.00	7.28	21.87	22.24	--------	--------	0.56
LW Up Sfc	425.90	70.00	4.77	12.46	13.26	--------	--------	--------
SW Dn Sfc	517.43	44.00	-29.37	22.77	37.01	-46.06	16.69	-14.26
SW Up Sfc	105.74	44.00	15.56	16.47	22.52	--------	--------	--------
LW Up TOA	279.25	74.00	0.39	2.63	2.64	--------	--------	-0.33
SW Up TOA	133.47	44.00	0.46	0.84	0.95	--------	--------	5.97

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	312.35	3.00	12.48	0.65	12.49	--------	--------	0.63
LW Up Sfc	453.45	6.00	5.39	2.47	5.84	--------	--------	--------
SW Dn Sfc	477.22	6.00	-18.58	1.58	18.64	-5.15	-13.90	-14.80
SW Up Sfc	99.77	6.00	18.66	1.88	18.73	--------	--------	--------
LW Up TOA	287.36	6.00	0.70	2.17	2.10	--------	--------	-0.28
SW Up TOA	127.39	6.00	0.63	0.55	0.80	--------	--------	8.24

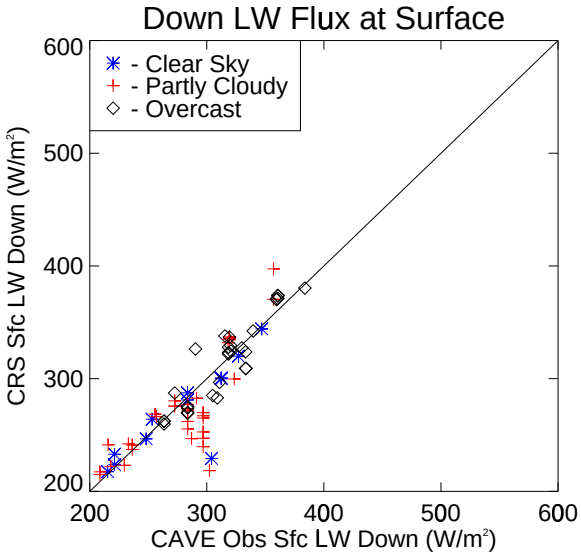
Overcast VIRS

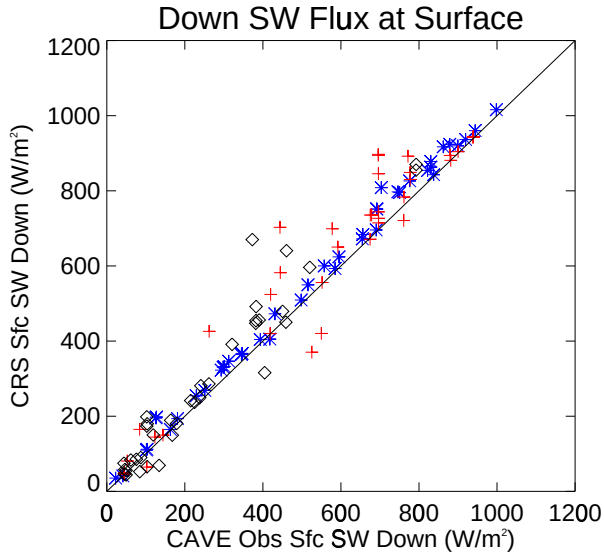
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	316.62	30.00	-0.43	15.79	15.53	52.25	52.68	15.53
LW Up Sfc	383.29	62.00	-5.52	12.94	13.97	--------	--------	--------
SW Dn Sfc	250.35	36.00	-32.30	55.87	63.86	-338.84	-306.55	63.86
SW Up Sfc	51.35	36.00	8.86	12.59	15.25	--------	--------	--------
LW Up TOA	196.17	62.00	-0.04	2.85	2.83	-64.25	-64.21	2.83
SW Up TOA	380.57	36.00	1.04	4.73	4.78	246.73	245.68	4.78

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	330.47	10.00	-6.17	6.75	8.89	61.60	67.77	8.89
LW Up Sfc	369.79	16.00	-11.97	8.20	14.36	--------	--------	--------
SW Dn Sfc	108.26	16.00	-26.75	42.54	49.11	-419.00	-392.25	49.11
SW Up Sfc	20.95	16.00	1.34	7.75	7.62	--------	--------	--------
LW Up TOA	196.71	16.00	-0.26	2.37	2.31	-62.42	-62.16	2.31
SW Up TOA	441.83	16.00	1.01	6.28	6.16	314.77	313.76	6.16

E06-Towanda (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	294.48	78.00	4.37	21.87	22.16	38.12	33.85	22.02
LW Up Sfc	406.52	211.00	-0.92	13.71	13.71	--------	--------	--------
SW Dn Sfc	447.68	120.00	-36.11	60.96	70.63	-149.02	-112.91	70.63
SW Up Sfc	90.81	120.00	16.16	17.71	23.92	--------	--------	--------
LW Up TOA	244.41	222.00	-1.20	6.88	6.97	-23.97	-22.77	6.97
SW Up TOA	234.95	120.00	8.61	19.79	21.51	99.51	90.90	21.51

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	280.09	13.00	7.21	21.81	22.16	--------	--------	0.56
LW Up Sfc	425.90	70.00	2.98	12.47	12.73	--------	--------	--------
SW Dn Sfc	517.43	44.00	-29.27	22.57	36.80	-45.97	16.71	-14.19
SW Up Sfc	105.74	44.00	16.88	15.97	23.11	--------	--------	--------
LW Up TOA	279.25	74.00	-0.01	3.99	3.97	--------	--------	-0.33
SW Up TOA	133.47	44.00	1.71	2.01	2.62	--------	--------	5.99

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	312.35	3.00	12.07	0.30	12.08	--------	--------	0.63
LW Up Sfc	453.45	6.00	4.04	5.32	6.32	--------	--------	--------
SW Dn Sfc	477.22	6.00	-18.56	1.49	18.61	-5.00	-13.88	-14.63
SW Up Sfc	99.77	6.00	20.69	1.63	20.74	--------	--------	--------
LW Up TOA	287.36	6.00	0.76	2.43	2.34	--------	--------	-0.28
SW Up TOA	127.39	6.00	2.57	2.12	3.22	--------	--------	8.25

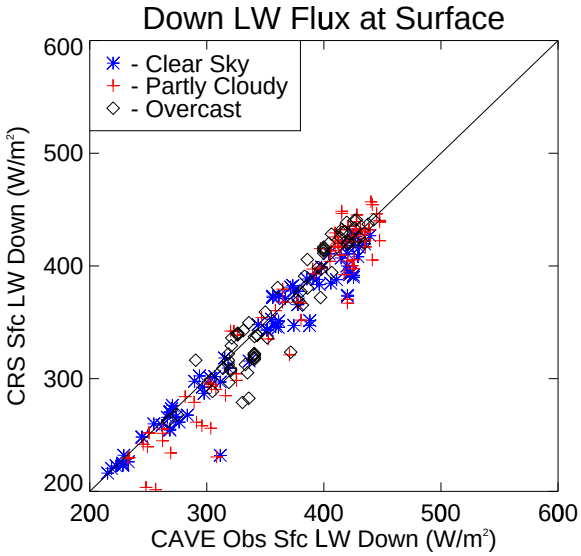
Overcast VIRS

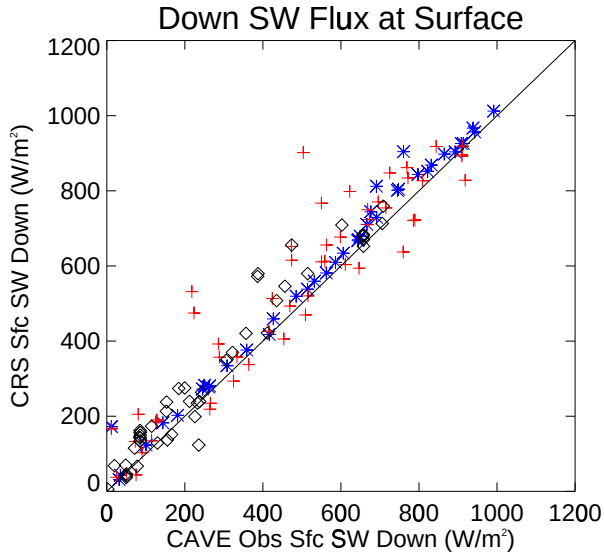
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	316.62	30.00	-0.18	14.81	14.56	52.25	52.42	14.56
LW Up Sfc	383.29	62.00	-5.50	12.96	13.98	--------	--------	--------
SW Dn Sfc	250.35	36.00	-37.47	67.43	76.32	-338.84	-301.37	76.32
SW Up Sfc	51.35	36.00	8.08	11.63	14.03	--------	--------	--------
LW Up TOA	196.17	62.00	-0.82	9.09	9.06	-64.23	-63.41	9.06
SW Up TOA	380.57	36.00	4.35	26.84	26.82	246.73	242.38	26.82

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	330.47	10.00	-6.94	5.71	8.80	61.62	68.55	8.80
LW Up Sfc	369.79	16.00	-11.98	8.20	14.37	--------	--------	--------
SW Dn Sfc	108.26	16.00	-18.69	38.72	41.89	-419.00	-400.31	41.89
SW Up Sfc	20.95	16.00	2.49	6.88	7.11	--------	--------	--------
LW Up TOA	196.71	16.00	-1.33	7.46	7.35	-62.42	-61.09	7.35
SW Up TOA	441.83	16.00	-5.92	24.10	24.08	314.77	320.69	24.08

E07-Elk_Falls (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	359.35	240.00	6.14	18.17	19.14	24.06	17.95	19.10
LW Up Sfc	420.72	225.00	-0.63	18.76	18.73	--------	--------	--------
SW Dn Sfc	427.71	142.00	-45.69	71.33	84.49	-158.11	-112.43	84.49
SW Up Sfc	85.33	142.00	8.71	19.14	20.97	--------	--------	--------
LW Up TOA	247.43	253.00	-0.07	3.93	3.92	-25.64	-25.56	3.92
SW Up TOA	230.42	142.00	1.39	5.37	5.53	93.54	92.15	5.53

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	339.64	83.00	8.53	15.66	17.74	--------	--------	0.55
LW Up Sfc	423.48	73.00	-2.17	17.55	17.57	--------	--------	--------
SW Dn Sfc	540.30	41.00	-38.87	38.70	54.52	-53.32	14.45	-15.34
SW Up Sfc	106.69	41.00	11.51	18.66	21.73	--------	--------	--------
LW Up TOA	277.14	94.00	0.09	2.39	2.38	--------	--------	-0.34
SW Up TOA	139.20	41.00	0.49	0.80	0.93	--------	--------	6.16

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	371.85	11.00	8.02	7.12	10.51	--------	--------	0.44
LW Up Sfc	470.25	11.00	-6.31	24.54	24.24	--------	--------	--------
SW Dn Sfc	567.18	11.00	-22.35	6.47	23.19	-27.16	1.10	-15.71
SW Up Sfc	111.72	11.00	12.12	11.73	16.49	--------	--------	--------
LW Up TOA	294.83	11.00	-0.97	1.82	1.99	--------	--------	-0.48
SW Up TOA	142.74	11.00	0.50	0.54	0.72	--------	--------	5.38

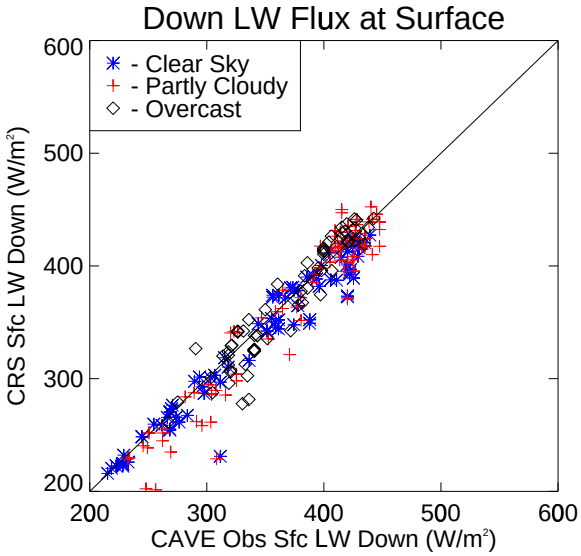
Overcast VIRS

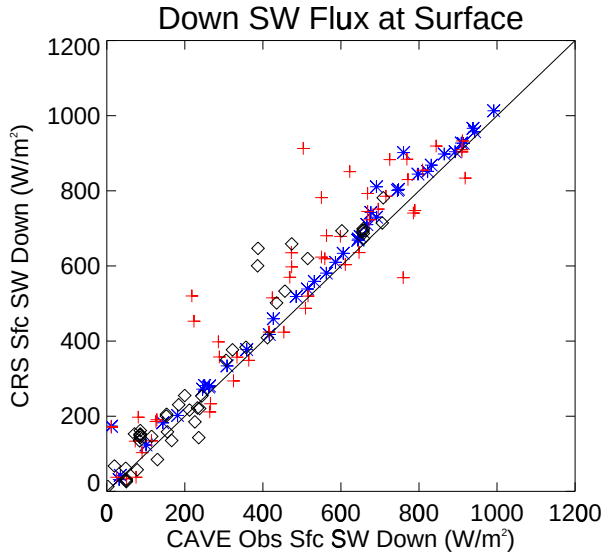
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	366.60	69.00	2.18	17.34	17.35	40.88	38.70	17.35
LW Up Sfc	396.58	69.00	-8.49	13.34	15.73	--------	--------	--------
SW Dn Sfc	275.84	47.00	-41.98	55.35	69.00	-308.00	-266.01	69.00
SW Up Sfc	56.83	47.00	5.71	14.57	15.51	--------	--------	--------
LW Up TOA	190.82	69.00	-0.01	3.73	3.70	-74.19	-74.18	3.70
SW Up TOA	356.69	47.00	1.52	5.46	5.61	219.29	217.77	5.61

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.97	25.00	1.38	14.86	14.62	47.96	46.58	14.62
LW Up Sfc	388.84	25.00	-13.14	9.70	16.21	--------	--------	--------
SW Dn Sfc	224.98	25.00	-37.78	31.75	48.94	-341.70	-303.91	48.94
SW Up Sfc	45.79	25.00	3.72	15.36	15.51	--------	--------	--------
LW Up TOA	185.17	25.00	-1.20	2.92	3.11	-79.04	-77.84	3.11
SW Up TOA	382.38	25.00	1.43	2.98	3.25	246.20	244.78	3.25

E07-Elk_Falls (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	359.35	240.00	6.16	17.96	18.95	23.98	17.85	18.91
LW Up Sfc	420.72	225.00	-1.18	18.87	18.87	--------	--------	--------
SW Dn Sfc	427.71	142.00	-47.85	74.94	88.69	-158.11	-110.26	88.69
SW Up Sfc	85.33	142.00	9.49	18.30	20.55	--------	--------	--------
LW Up TOA	247.43	253.00	-0.87	7.35	7.39	-25.83	-24.95	7.39
SW Up TOA	230.42	142.00	3.93	16.75	17.15	94.59	90.66	17.15

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	339.64	83.00	8.47	15.66	17.72	--------	--------	0.55
LW Up Sfc	423.48	73.00	-3.59	16.34	16.62	--------	--------	--------
SW Dn Sfc	540.30	41.00	-38.85	38.50	54.36	-53.29	14.45	-15.27
SW Up Sfc	106.69	41.00	12.81	18.24	22.11	--------	--------	--------
LW Up TOA	277.14	94.00	-0.36	3.73	3.73	--------	--------	-0.34
SW Up TOA	139.20	41.00	1.70	1.93	2.56	--------	--------	6.19

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	371.85	11.00	8.62	5.84	10.26	--------	--------	0.45
LW Up Sfc	470.25	11.00	-9.08	24.45	25.02	--------	--------	--------
SW Dn Sfc	567.18	11.00	-22.65	6.26	23.43	-27.50	1.03	-15.71
SW Up Sfc	111.72	11.00	13.44	11.03	17.07	--------	--------	--------
LW Up TOA	294.83	11.00	-1.57	3.84	3.99	--------	--------	-0.49
SW Up TOA	142.74	11.00	1.69	1.91	2.49	--------	--------	5.40

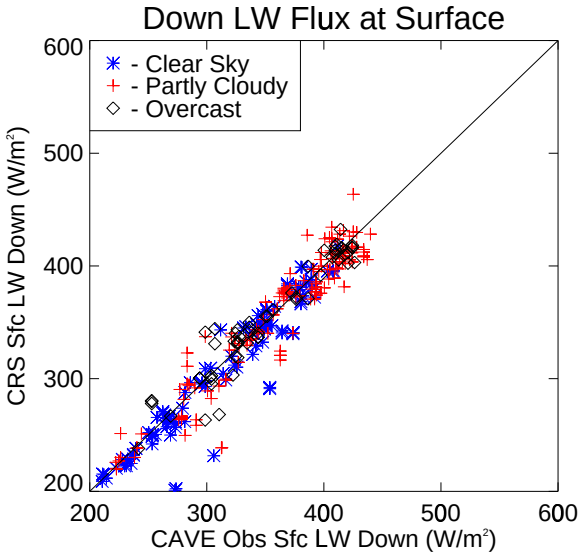
Overcast VIRS

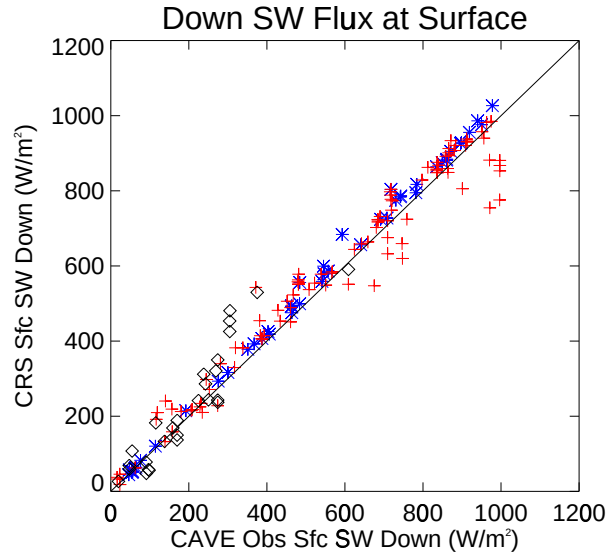
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	366.60	69.00	0.95	16.79	16.69	40.87	39.91	16.69
LW Up Sfc	396.58	69.00	-8.50	13.34	15.74	--------	--------	--------
SW Dn Sfc	275.84	47.00	-40.09	62.86	73.99	-308.00	-267.91	73.99
SW Up Sfc	56.83	47.00	5.99	14.57	15.61	--------	--------	--------
LW Up TOA	190.82	69.00	-2.07	9.78	9.92	-74.17	-72.10	9.92
SW Up TOA	356.69	47.00	0.13	19.67	19.46	219.29	219.16	19.46

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	362.97	25.00	-0.84	13.29	13.05	47.96	48.81	13.05
LW Up Sfc	388.84	25.00	-13.17	9.69	16.24	--------	--------	--------
SW Dn Sfc	224.98	25.00	-31.30	34.12	45.80	-341.70	-310.40	45.80
SW Up Sfc	45.79	25.00	4.80	14.27	14.78	--------	--------	--------
LW Up TOA	185.17	25.00	-3.81	7.21	8.03	-79.03	-75.21	8.03
SW Up TOA	382.38	25.00	-3.42	17.05	17.05	246.20	249.62	17.05

E08-Coldwater (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	344.58	313.00	3.52	17.68	18.00	18.56	15.05	17.97
LW Up Sfc	432.89	287.00	9.62	27.72	29.30	--------	--------	--------
SW Dn Sfc	510.44	182.00	-19.00	53.52	56.65	-102.64	-83.63	56.65
SW Up Sfc	105.65	182.00	14.63	23.23	27.40	--------	--------	--------
LW Up TOA	255.58	318.00	0.63	5.26	5.29	-17.92	-18.55	5.29
SW Up TOA	212.48	182.00	1.65	13.09	13.16	66.21	64.56	13.16

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	315.29	104.00	6.25	17.70	18.69	--------	--------	0.60
LW Up Sfc	416.68	91.00	7.04	11.87	13.75	--------	--------	--------
SW Dn Sfc	516.71	49.00	-25.67	20.82	32.92	-31.98	6.31	-12.48
SW Up Sfc	107.43	49.00	10.04	11.07	14.86	--------	--------	--------
LW Up TOA	273.88	106.00	-0.01	2.20	2.19	--------	--------	-0.33
SW Up TOA	137.13	49.00	0.25	0.52	0.57	--------	--------	4.83

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	334.72	11.00	17.86	11.86	21.14	--------	--------	0.40
LW Up Sfc	463.27	11.00	4.87	9.92	10.64	--------	--------	--------
SW Dn Sfc	642.19	11.00	-27.22	6.19	27.85	-21.31	-8.14	-8.68
SW Up Sfc	127.77	11.00	12.14	10.03	15.46	--------	--------	--------
LW Up TOA	298.38	11.00	-0.47	2.16	2.11	--------	--------	-0.32
SW Up TOA	158.27	11.00	0.24	0.36	0.42	--------	--------	2.32

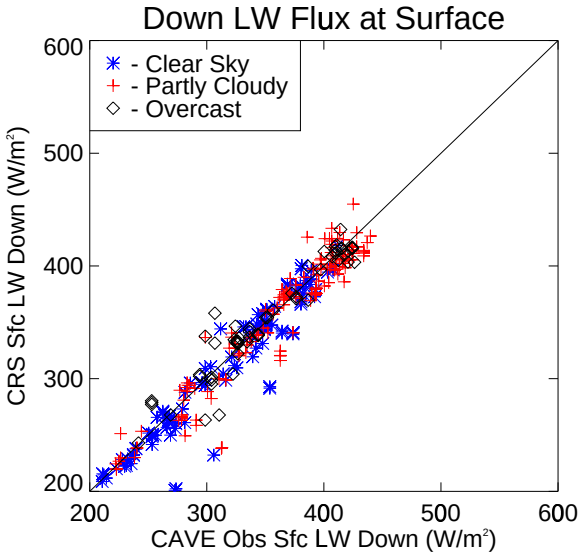
Overcast VIRS

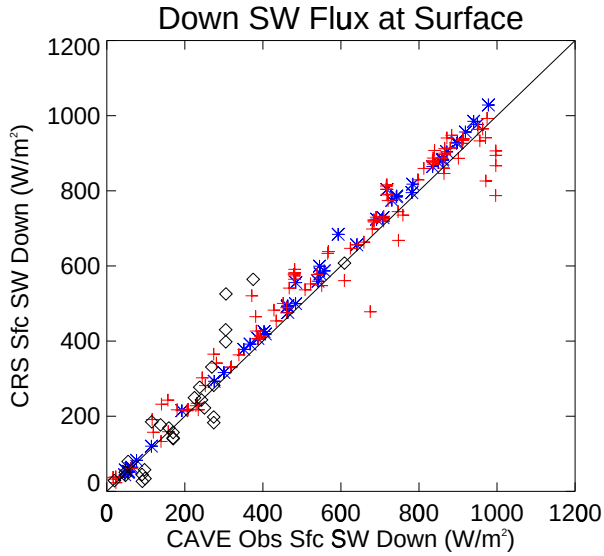
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	351.07	60.00	-1.72	14.92	14.90	40.03	41.75	14.90
LW Up Sfc	381.37	58.00	-12.60	10.10	16.09	--------	--------	--------
SW Dn Sfc	200.53	27.00	-28.22	63.19	68.13	-372.78	-344.57	68.13
SW Up Sfc	41.87	27.00	3.93	10.28	10.82	--------	--------	--------
LW Up TOA	197.02	60.00	0.55	2.96	2.99	-63.88	-64.43	2.99
SW Up TOA	401.04	27.00	-0.83	10.13	9.98	262.62	263.45	9.98

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	334.70	11.00	-4.23	7.22	8.08	68.56	72.79	8.08
LW Up Sfc	348.55	11.00	-17.65	13.34	21.75	--------	--------	--------
SW Dn Sfc	114.41	11.00	-7.78	34.84	34.12	-361.18	-353.40	34.12
SW Up Sfc	23.05	11.00	3.04	5.19	5.81	--------	--------	--------
LW Up TOA	203.66	11.00	-0.47	2.72	2.64	-48.15	-47.68	2.64
SW Up TOA	392.31	11.00	-4.94	13.55	13.83	268.43	273.38	13.83

E08-Coldwater (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	344.58	313.00	4.22	17.15	17.63	18.36	14.15	17.60
LW Up Sfc	432.44	288.00	9.16	29.94	31.26	--------	--------	--------
SW Dn Sfc	510.44	182.00	-23.48	52.39	57.28	-102.44	-78.97	57.28
SW Up Sfc	105.65	182.00	15.55	21.66	26.62	--------	--------	--------
LW Up TOA	255.58	318.00	-0.11	8.13	8.12	-18.30	-18.19	8.12
SW Up TOA	212.48	182.00	6.28	22.86	23.65	67.62	61.35	23.65

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	315.29	104.00	6.27	17.79	18.78	--------	--------	0.60
LW Up Sfc	416.60	91.00	1.19	12.79	12.78	--------	--------	--------
SW Dn Sfc	516.71	49.00	-25.82	20.82	33.04	-32.11	6.29	-12.46
SW Up Sfc	107.43	49.00	10.63	10.61	14.94	--------	--------	--------
LW Up TOA	273.88	106.00	-1.66	3.99	4.30	--------	--------	-0.35
SW Up TOA	137.13	49.00	0.79	1.66	1.82	--------	--------	4.85

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	334.72	11.00	18.14	11.95	21.42	--------	--------	0.41
LW Up Sfc	463.27	11.00	-7.03	12.51	13.85	--------	--------	--------
SW Dn Sfc	642.19	11.00	-27.54	6.53	28.24	-21.78	-8.20	-8.68
SW Up Sfc	127.77	11.00	12.61	8.74	15.12	--------	--------	--------
LW Up TOA	298.38	11.00	-4.06	4.14	5.67	--------	--------	-0.34
SW Up TOA	158.27	11.00	0.66	1.93	1.96	--------	--------	2.31

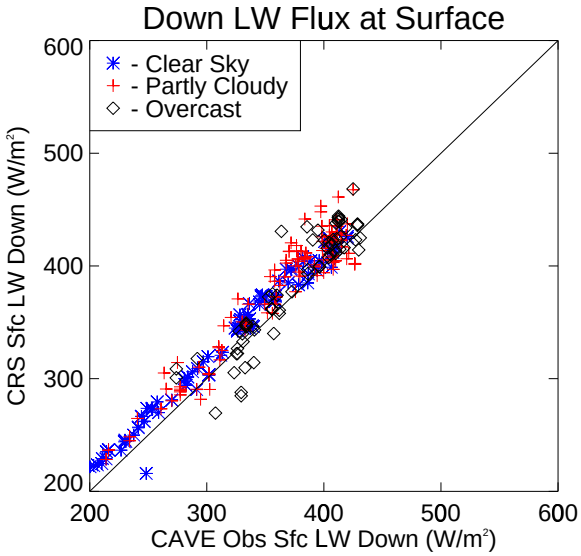
Overcast VIRS

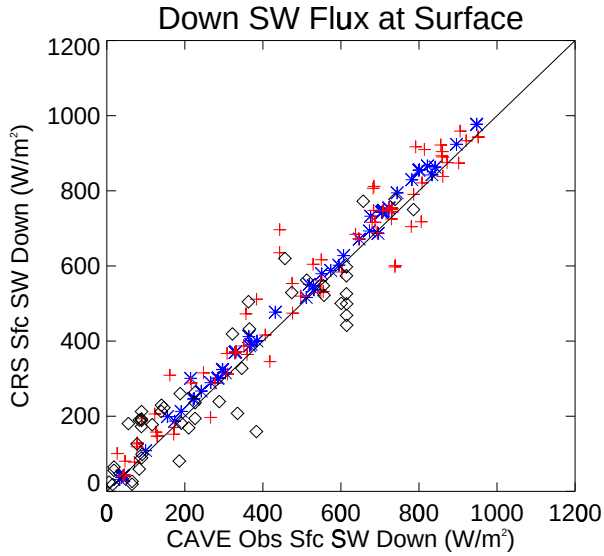
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	351.07	60.00	-2.00	15.24	15.25	40.03	42.03	15.25
LW Up Sfc	381.37	58.00	-12.59	10.10	16.09	--------	--------	--------
SW Dn Sfc	200.53	27.00	-16.01	74.36	74.70	-372.78	-356.78	74.70
SW Up Sfc	41.87	27.00	6.04	11.70	12.97	--------	--------	--------
LW Up TOA	197.02	60.00	1.93	8.04	8.20	-63.87	-65.80	8.20
SW Up TOA	401.04	27.00	-11.31	23.95	26.08	262.62	273.93	26.08

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	334.70	11.00	-6.95	7.32	9.85	68.56	75.50	9.85
LW Up Sfc	348.55	11.00	-17.69	13.33	21.79	--------	--------	--------
SW Dn Sfc	114.41	11.00	9.13	30.84	30.79	-361.18	-370.31	30.79
SW Up Sfc	23.05	11.00	5.95	4.07	7.11	--------	--------	--------
LW Up TOA	203.66	11.00	-0.44	4.85	4.64	-48.16	-47.72	4.64
SW Up TOA	392.31	11.00	-17.99	11.71	21.17	268.43	286.42	21.17

E09-Ashton (ARM) Tuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	346.87	284.00	-14.40	15.46	21.11	1.38	15.80	21.10
LW Up Sfc	431.65	274.00	1.49	16.62	16.66	--------	--------	--------
SW Dn Sfc	436.87	188.00	-23.55	60.64	64.90	-137.61	-114.06	64.90
SW Up Sfc	87.30	191.00	8.63	16.33	18.44	--------	--------	--------
LW Up TOA	251.41	332.00	0.51	4.60	4.62	-21.65	-22.16	4.62
SW Up TOA	228.03	191.00	0.53	15.97	15.94	90.69	90.16	15.94

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	317.15	107.00	-14.53	8.89	17.01	--------	--------	0.55
LW Up Sfc	426.64	99.00	2.98	15.61	15.82	--------	--------	--------
SW Dn Sfc	467.44	62.00	-26.22	18.05	31.75	-45.03	18.81	-13.40
SW Up Sfc	98.73	65.00	8.48	13.31	15.70	--------	--------	--------
LW Up TOA	274.73	127.00	-0.07	2.60	2.59	--------	--------	-0.32
SW Up TOA	131.82	65.00	0.42	0.62	0.75	--------	--------	5.27

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	317.82	6.00	-11.04	9.54	14.06	--------	--------	0.36
LW Up Sfc	442.96	6.00	4.66	10.24	10.45	--------	--------	--------
SW Dn Sfc	474.74	6.00	-20.45	13.97	24.10	-23.96	0.25	-10.15
SW Up Sfc	101.30	6.00	18.58	18.68	25.22	--------	--------	--------
LW Up TOA	286.07	6.00	1.03	2.43	2.44	--------	--------	-0.26
SW Up TOA	126.03	6.00	0.57	0.90	1.00	--------	--------	4.01

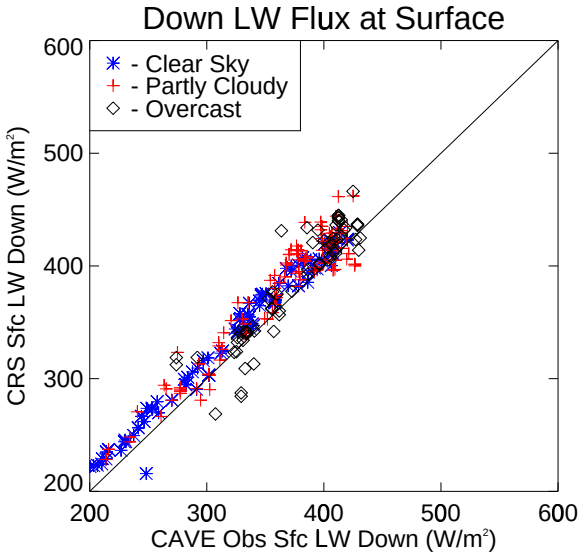
Overcast VIRS

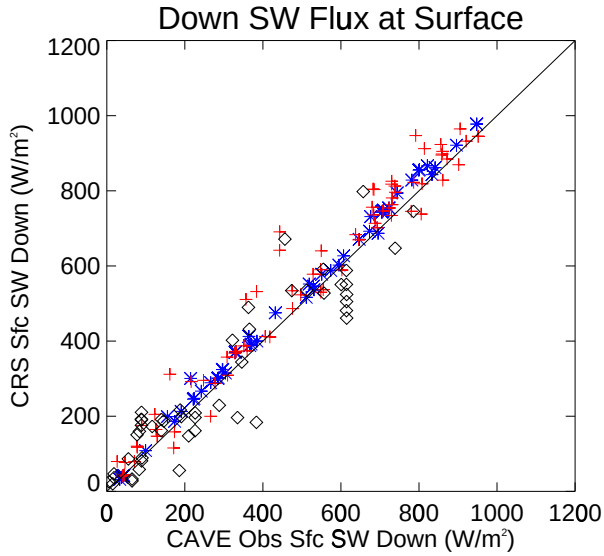
	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	374.98	68.00	-9.57	19.73	21.80	29.34	38.91	21.80
LW Up Sfc	415.15	68.00	-8.50	10.97	13.82	--------	--------	--------
SW Dn Sfc	294.78	49.00	-9.81	86.11	85.78	-339.62	-329.81	85.78
SW Up Sfc	58.35	49.00	8.82	19.77	21.46	--------	--------	--------
LW Up TOA	199.98	86.00	0.61	4.10	4.12	-66.70	-67.31	4.12
SW Up TOA	409.02	49.00	3.30	12.81	13.10	267.40	264.11	13.10

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	353.92	20.00	-6.22	8.46	10.33	52.81	59.03	10.33
LW Up Sfc	375.09	20.00	-11.83	10.18	15.44	--------	--------	--------
SW Dn Sfc	124.53	20.00	-46.63	77.47	88.74	-418.82	-372.19	88.74
SW Up Sfc	23.63	20.00	-2.67	14.13	14.03	--------	--------	--------
LW Up TOA	210.15	20.00	-0.23	3.91	3.82	-50.04	-49.81	3.82
SW Up TOA	429.63	20.00	1.22	3.41	3.54	299.29	298.07	3.54

E09-Ashton (ARM) Untuned CRS





All Sky

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	346.87	284.00	-14.02	15.11	20.59	1.50	15.54	20.59
LW Up Sfc	431.65	274.00	-1.20	16.32	16.34	--------	--------	--------
SW Dn Sfc	436.87	188.00	-25.46	58.59	63.74	-137.52	-112.06	63.74
SW Up Sfc	87.30	191.00	9.66	16.65	19.21	--------	--------	--------
LW Up TOA	251.41	332.00	0.13	7.92	7.91	-22.18	-22.31	7.91
SW Up TOA	228.03	191.00	2.77	18.55	18.71	91.88	89.10	18.71

Clear Sky VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	317.15	107.00	-14.44	8.91	16.95	--------	--------	0.55
LW Up Sfc	426.64	99.00	-2.23	12.61	12.74	--------	--------	--------
SW Dn Sfc	467.44	62.00	-26.21	18.08	31.76	-45.02	18.81	-13.35
SW Up Sfc	98.73	65.00	9.59	12.98	16.06	--------	--------	--------
LW Up TOA	274.73	127.00	-1.12	4.28	4.41	--------	--------	-0.33
SW Up TOA	131.82	65.00	1.45	1.97	2.43	--------	--------	5.29

Clear Sky VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Dir Bias Obs-CRS	Dif Bias Obs-CRS	AOT Frc Clr-Prs
LW Dn Sfc	317.82	6.00	-11.48	9.29	14.27	--------	--------	0.35
LW Up Sfc	442.96	6.00	-0.61	8.34	7.64	--------	--------	--------
SW Dn Sfc	474.74	6.00	-20.30	13.84	23.91	-23.71	0.28	-10.10
SW Up Sfc	101.30	6.00	19.90	17.75	25.66	--------	--------	--------
LW Up TOA	286.07	6.00	-0.04	3.42	3.13	--------	--------	-0.27
SW Up TOA	126.03	6.00	1.83	2.47	2.91	--------	--------	4.03

Overcast VIRS

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	374.98	68.00	-10.38	19.78	22.21	29.33	39.72	22.21
LW Up Sfc	415.15	68.00	-8.51	10.97	13.82	--------	--------	--------
SW Dn Sfc	294.78	49.00	-0.58	83.61	82.75	-339.62	-339.03	82.75
SW Up Sfc	58.35	49.00	10.22	19.08	21.47	--------	--------	--------
LW Up TOA	199.98	86.00	1.17	10.02	10.03	-66.69	-67.86	10.03
SW Up TOA	409.02	49.00	-4.40	28.78	28.82	267.40	271.81	28.82

Overcast VIRS & L/AA

	Obs Mean	N	Bias Obs-CRS	Std Dev	RMS	Obs Frc All-Clr	Mod Frc All-Clr	Forcing RMS
LW Dn Sfc	353.92	20.00	-7.28	4.78	8.65	52.79	60.07	8.65
LW Up Sfc	375.09	20.00	-11.84	10.19	15.46	--------	--------	--------
SW Dn Sfc	124.53	20.00	-26.09	71.76	74.66	-418.82	-392.73	74.66
SW Up Sfc	23.63	20.00	0.49	13.24	12.91	--------	--------	--------
LW Up TOA	210.15	20.00	-1.10	9.01	8.85	-50.03	-48.94	8.85
SW Up TOA	429.63	20.00	-16.02	23.37	27.85	299.29	315.31	27.85