	mean (units)				bias (abs)			bias (%)			ε_{rmse} (−)			θ (months)			ε_{iav} (−)			σ (−)			R (−)			
	Reference	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	CLASSIC.CRUJRAv2	CLASSIC.GSWP3W5E5	CLASSIC.CRUNCEP	
RNS−CERES	77.9	75.7	70.92	65.89	−2.2	−7.01	−12.07	−3	−9	−15	0.35	0.3	0.37	0.68	0.55	0.77	0.38	0.33	0.35	1.02	1	1.03	0.93	0.96	0.91	$W\ m^{-2}$
RNS−CLASSr	64.67	76.91	72.12	67.06	12.24	7.43	2.33	19	11	4	0.42	0.33	0.41	0.88	0.76	0.95	0.34	0.28	0.3	1.07	1.05	1.08	0.93	0.96	0.9	$W\ m^{-2}$
RNS−FluxCom	81.77	78.08	73.14	69.89	−3.69	−8.66	−11.94	−5	−11	−15	0.33	0.26	0.36	0.67	0.49	0.81	0.59	0.76	0.68	1.15	1.13	1.14	0.95	0.97	0.94	$W\ m^{-2}$
RNS−FLUXNET	80.36	82.35	76.91	73.97	1.99	−3.45	−6.39	2	−4	−8	0.32	0.25	0.35	0.49	0.37	0.62	0.46	0.39	0.47	1.02	1.01	1.06	0.86	0.92	0.86	$W\ m^{-2}$
RNS−GEWEXSRB	74.02	75.45	70.68	65.74	1.43	−3.34	−8.33	2	−5	−11	0.49	0.41	0.49	0.77	0.6	0.85	0.46	0.4	0.44	1.19	1.15	1.19	0.87	0.92	0.91	$W\ m^{-2}$
RSS−CERES	140.94	138.98	136.54	139.4	−1.97	−4.45	−1.65	−1	−3	−1	0.3	0.22	0.3	0.55	0.38	0.56	0.43	0.11	0.38	0.95	1.01	0.94	0.93	0.98	0.94	$W\ m^{-2}$
RSS−GEWEXSRB	141.42	138.52	135.43	138.77	−2.89	−5.99	−2.74	−2	−4	−2	0.37	0.28	0.38	0.55	0.41	0.56	0.53	0.2	0.51	1.07	1.13	1.06	0.92	0.98	0.93	$W\ m^{-2}$
RLS−CERES	−63.05	−63.28	−65.63	−73.51	−0.23	−2.55	−10.42	0	−4	−17	0.65	0.55	0.62	0.76	0.63	0.65	0.45	0.28	0.36	0.85	1.04	1.02	0.94	0.96	0.9	$W\ m^{-2}$
RLS−GEWEXSRB	−67.25	−62.94	−64.63	−72.8	4.32	2.63	−5.51	6	4	−8	0.59	0.51	0.54	0.68	0.67	0.67	0.46	0.29	0.38	0.68	0.84	0.82	0.96	0.97	0.93	$W\ m^{-2}$
ALBS−CERES	0.25	0.29	0.29	0.3	0.05	0.04	0.05	19	18	19	0.98	0.98	0.99	1.67	1.82	1.79	0.4	0.38	0.39	1.35	1.29	1.34	0.89	0.91	0.89	(−)
ALBS−GEWEXSRB	0.21	0.3	0.29	0.3	0.09	0.09	0.09	42	41	42	1.1	1.12	1.12	2	2.18	2.12	0.47	0.46	0.47	2.04	1.95	2.03	0.77	0.79	0.78	(−)
ALBS−MODIS	0.22	0.27	0.27	0.27	0.05	0.05	0.05	23	22	24	0.99	0.99	1	1.57	1.58	1.56	0.45	0.39	0.39	1.19	1.12	1.19	0.83	0.85	0.83	(−)
HFLS−CLASSr	32.4	33.96	33.8	36.1	1.55	1.4	3.67	5	4	11	0.65	0.62	0.69	0.97	0.86	0.95	0.35	0.33	0.29	0.95	0.98	1.07	0.97	0.97	0.97	$W\ m^{-2}$
HFLS−FluxCom	45.38	37.05	37.02	40.06	−8.32	−8.37	−5.35	−18	−18	−12	0.45	0.45	0.5	0.84	0.69	0.85	1.77	1.86	2.42	0.94	0.97	1.08	0.96	0.96	0.95	$W\ m^{-2}$
HFLS−FLUXNET	43.52	37.69	37.97	40.36	−5.83	−5.55	−3.16	−13	−13	−7	0.71	0.69	0.74	0.8	0.8	0.8	0.5	0.44	0.43	0.82	0.86	0.94	0.84	0.84	0.85	$W\ m^{-2}$
HFSS−CLASSr	30.82	41.63	36.67	29.67	10.82	5.82	−1.19	35	19	−4	0.76	0.62	0.74	1.12	0.97	1.11	0.28	0.25	0.28	0.85	0.88	0.74	0.79	0.87	0.79	$W\ m^{-2}$
HFSS−FluxCom	36.63	39.51	34.24	28.33	2.87	−2.42	−8.33	8	−7	−23	0.58	0.56	0.63	0.96	0.81	0.99	0.59	0.98	0.81	1.26	1.3	1.11	0.78	0.89	0.83	$W\ m^{-2}$
HFSS−FLUXNET	37.67	43.42	38.5	31.61	5.75	0.83	−6.06	15	2	−16	0.77	0.68	0.77	1	0.75	0.96	0.47	0.37	0.39	0.78	1.03	0.77	0.8	0.82	0.82	$W\ m^{-2}$
HFG−CLASSr	1.45	0.14	0.22	0.19	−1.31	−1.22	−1.25	−90	−84	−87	0.91	0.85	0.94	0.89	0.82	0.88	0.28	0.28	0.36	0.16	0.18	0.17	0.04	0.09	0.04	$W\ m^{-2}$
HFG−FLUXNET	0.44	0.23	0.32	0.3	−0.21	−0.12	−0.14	−48	−27	−32	0.92	0.91	0.97	0.91	0.94	0.94	0.37	0.41	0.35	0.15	0.15	0.15	0.25	0.13	0.21	$W\ m^{-2}$
MRSLL−ESA	20.47	21.59	21.4	20.2	1.12	0.92	−0.28	5	5	−1	1.46	1.33	1.5	1.49	1.51	1.5	0.34	0.36	0.36	1.44	1.52	1.39	0.62	0.62	0.63	$kg\ m^{-2}$
MRRO−CLASSr	0.64	0.75	0.86	0.65	0.1	0.22	0	16	34	1	1.14	1.27	1.1	2.19	2.2	2.25	0.69	0.78	0.71	1.1	1.19	1.04	0.87	0.87	0.88	$kg\ m^{-2}\ d^{-1}$
MRRO−GRDC	0.82	0.85	0.98	0.71	0.03	0.16	−0.11	4	20	−14	0.22	0.25	0.18				0.53	0.63	0.44	0.9	0.99	0.85	0.87	0.94	0.92	$kg\ m^{-2}\ d^{-1}$
SNW−Brown	2.63	3.32	4.48	3.19	0.69	1.85	0.57	26	70	22	0.55	0.88	0.63	0.39	0.38	0.45	0.19	0.51	0.24	1.18	1.68	1.15	0.87	0.87	0.84	cm
SNW−Crocus	2.69	3.43	4.57	3.3	0.73	1.88	0.63	27	70	24	0.75	1	0.81	0.66	0.62	0.74	0.28	0.48	0.31	1.09	1.51	1.1	0.77	0.76	0.7	cm
SNW−ECCC	2.61	3.12	4.13	2.99	0.5	1.52	0.4	19	58	15	0.66	0.91	0.74	0.57	0.51	0.62	0.29	0.61	0.33	1.09	1.5	1.1	0.84	0.87	0.79	cm
SNW−GS3	2.7	3.29	4.4	3.18	0.59	1.7	0.49	22	63	18	0.67	0.88	0.73	0.74	0.68	0.77	0.28	0.52	0.29	1.13	1.58	1.14	0.78	0.81	0.72	cm
SNW−MERRA2	3.51	3.11	4.13	2.99	−0.4	0.62	−0.49	−11	18	−14	0.69	0.79	0.76	0.7	0.6	0.75	0.38	0.37	0.39	0.76	1.05	0.77	0.86	0.88	0.81	cm
SNW−Mortimer	8.91	8.07	10.98	8.03	−0.84	2.07	−0.88	−9	23	−10	0.71	0.88	0.74	0.72	0.73	0.73	0.24	0.21	0.22	0.68	0.93	0.68	0.61	0.54	0.57	cm
GPP−FluxCom	2.28	2.62	2.51	2.43	0.35	0.23	0.15	15	10	7	0.74	0.76	0.79	0.9	0.89	0.95	2.82	3.18	3.37	1.1	1.03	1.02	0.92	0.91	0.9	$gC\ m^{-2}\ d^{-1}$
GPP−FLUXNET	3.29	3.1	3.05	2.95	−0.18	−0.23	−0.33	−6	−7	−10	0.81	0.8	0.83	0.86	0.81	0.87	0.54	0.45	0.42	0.91	0.85	0.88	0.71	0.71	0.71	$gC\ m^{-2}\ d^{-1}$
GPP−GOSIF	2.57	2.52	2.4	2.33	−0.05	−0.17	−0.23	−2	−7	−9	0.82	0.83	0.86	1.13	1.09	1.12	0.44	0.44	0.44	1	0.93	0.93	0.92	0.91	0.9	$gC\ m^{-2}\ d^{-1}$
GPP−MODIS	2.23	2.46	2.34	2.28	0.23	0.11	0.05	10	5	2	0.72	0.73	0.78	0.96	0.93	1.01	0.43	0.46	0.46	1.14	1.06	1.06	0.93	0.91	0.9	$gC\ m^{-2}\ d^{-1}$
RECO−FluxCom	1.81	2.56	2.44	2.35	0.75	0.63	0.54	42	35	30	0.57	0.58	0.58	0.8	0.79	0.8	1.34	1.43	1.48	1.53	1.43	1.41	0.91	0.9	0.89	$gC\ m^{-2}\ d^{-1}$
RECO−FLUXNET	2.73	3.04	2.99	2.86	0.31	0.26	0.14	12	10	5	0.74	0.73	0.76	0.6	0.58	0.7	0.69	0.64	0.65	1.02	0.97	0.98	0.72	0.67	0.69	$gC\ m^{-2}\ d^{-1}$
NEE−CT2019	−0.09	−0.07	−0.08	−0.08	0.01	0.01	0	14	11	4	1.23	1.28	1.3	1.55	1.47	1.55	0.61	0.61	0.58	1.08	1.17	1.05	0.18	0.13	0.18	$gC\ m^{-2}\ d^{-1}$
NEE−FluxCom	−0.48	−0.07	−0.07	−0.08	0.42	0.41	0.41	86	85	84	1.29	1.35	1.4	1.42	1.42	1.37	3.35	3.75	4.19	0.2	0.24	0.2	0.38	0.29	0.43	$gC\ m^{-2}\ d^{-1}$
NEE−FLUXNET	−0.63	−0.08	−0.08	−0.11	0.56	0.55	0.52	88	87	82	1.08	1.12	1.13	1.29	1.28	1.32	0.5	0.49	0.39	0.18	0.16	0.17	0.02	0.11	0.04	$gC\ m^{-2}\ d^{-1}$
FIRE−CT2019	0.05	0.03	0.04	0.03	−0.02	−0.01	−0.01	−40	−11	−29	1	1	1	2.16	2.01	2.01	0.99	1	0.99	0.8	1.06	0.86	0.32	0.37	0.37	$gC\ m^{-2}\ d^{-1}$
BURNT−ESACCI	0.26	0.18	0.28	0.22	−0.08	0.03	−0.04	−30	11	−15	1	1	1	2.2	2.07	2.08	0.99	0.99	0.99	0.73	1.04	0.8	0.45	0.5	0.48	% per month
BURNT−GFED4S	0.27	0.19	0.31	0.24	−0.08	0.04	−0.03	−29	14	−13	1	1	1	2.06	2.01	1.97	1	1	1	0.8	1.13	0.87	0.46	0.51	0.49	% per month
AGB−FOS	10.3	9.99	9.02	8.15	−0.31	−1.28	−2.15	−3	−12	−21										0.71	0.65	0.64	0.46	0.42	0.4	$kgC\ m^{-2}$
AGB−GEOCARBON	2.42	5.15	4.62	4.39	2.73	2.2	1.97	113	91	81										1.13	1.01	1	0.62	0.58	0.6	$kgC\ m^{-2}$
CVEG−Saatchi	5.09	6.75	5.47	5.18	1.66	0.38	0.09	33	8	2										1.23	1.05	1.05	0.68	0.69	0.71	$kgC\ m^{-2}$
CSOIL−HWSD	10.09	8.94	8.33	7.91	−1.16	−1.76	−2.17	−11	−17	−22										0.95	0.91	0.9	0.5	0.51	0.54	$kgC\ m^{-2}$
LAI−AVHRR	1.36	2.03	1.87	1.78	0.67	0.51	0.42	49	37	31	0.99	0.99	0.99	1.78	1.69	1.72	0.53	0.52	0.47	1.66	1.47	1.44	0.8	0.8	0.8	$m^2\ m^{-2}$
LAI−CEOS	2.24	2.73	2.46	2.27	0.5	0.21	0.02	22	10	1										1.16	1.09	1.1	0.51	0.61	0.64	$m^2\ m^{-2}$
LAI−MODIS	1.48	2.36	2.19	2.12	0.88	0.71	0.64	59	48	43	1.29	1.29	1.31	1.68	1.65	1.63	0.46	0.48	0.44	1.43	1.27	1.27	0.71	0.7	0.72	$m^2\ m^{-2}$
LAI−ORNL	4.49	3.66	3.64	3.41	−0.83	−0.85	−1.07	−19	−19	−24										0.7	0.68	0.71	0.38	0.38	0.4	$m^2\ m^{-2}$