

Supplementary Materials

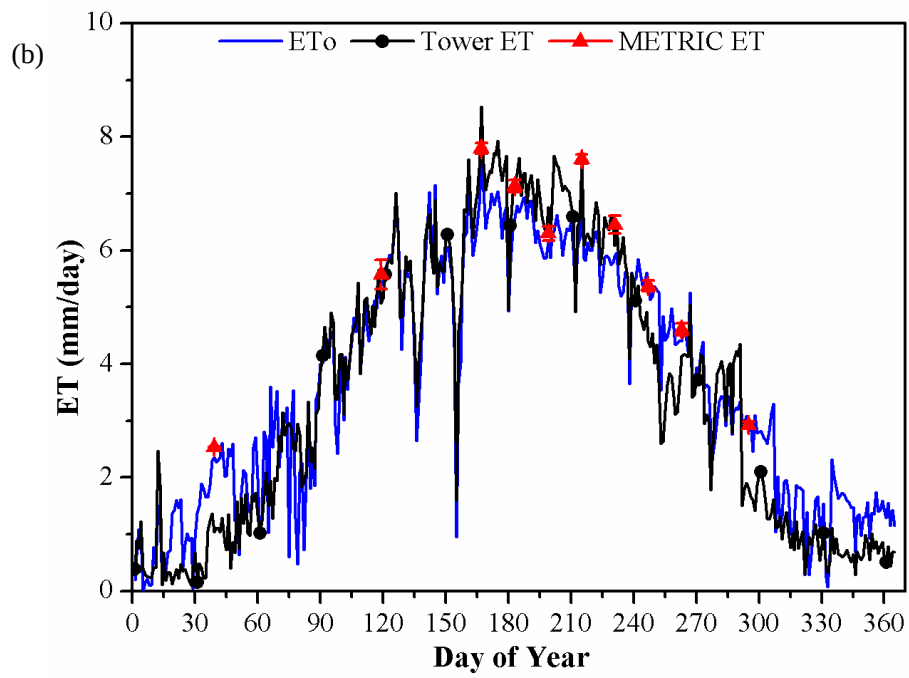
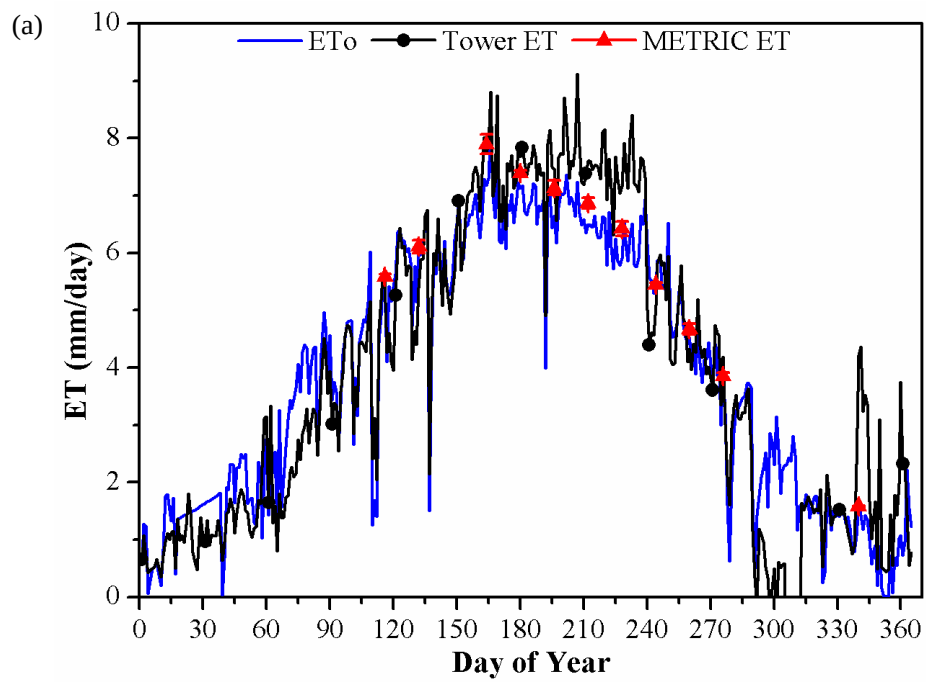
Table S1. List of 46 Landsat 5 TM and 7 ETM+ images used for estimating ET by METRIC approach.

2009		2010		2011		2012	
Date	Julian day of year	Date	Julian day of year	Date	Julian day of year	Date	Julian day of year
02/02	33	04/26	116	02/08	39	01/18	18
02/18	49	05/12	132	04/29	119	04/07	98
04/07	97	06/13	164	06/16	167	05/09	130
04/23	113	06/29	180	07/02	183	06/10	162
05/09	129	07/15	196	07/18	199	06/26	178
05/25	145	07/31	212	08/03	215	07/28	210
06/26	177	08/16	228	08/19	231	08/13	226
07/12	193	09/01	244	09/04	247	09/14	258
07/28	209	09/17	260	09/20	263	09/30	274
08/29	241	10/03	276	10/22	295	10/16	290
09/30	273	12/06	340			12/19	354
11/01	305						
11/17	321						
12/03	337						

Table S2. Statistics of METRIC-based monthly ET (mm/month) over the almond orchard

(n = 676 pixels) from April to September in 2009 – 2012.

Month	2009		2010		2011		2012		2009 - 2012	
	Mean ±STD	CV	Mean ±STD	CV	Mean ±STD	CV	Mean ±STD	CV	Mean ±STD	CV
Apr.	155.57 ±9.29	5.97	119.59 ±4.24	3.55	135.22 ±7.16	5.29	137.86 ±7.26	5.27	137.06 ±14.74	10.76
May	206.69 ±10.09	4.88	183.43 ±11.44	6.24	183.35 ±4.76	2.60	207.70 ±12.64	6.09	195.29 ±13.75	7.04
Jun.	209.24 ±11.98	5.72	210.46 ±12.09	5.75	188.14 ±7.76	4.12	216.02 ±11.57	5.36	205.96 ±12.25	5.95
Jul.	226.62 ±11.52	5.09	217.82 ±11.51	5.28	205.49 ±10.10	4.92	215.16 ±10.73	4.99	216.27 ±8.70	4.02
Aug.	194.43 ±9.52	4.89	198.24 ±10.58	5.34	189.66 ±8.05	4.25	199.55 ±9.94	4.98	195.47 ±4.44	2.27
Sept.	158.55 ±8.32	5.25	147.95 ±5.52	3.73	140.47 ±4.47	3.18	146.45 ±6.88	4.69	148.36 ±7.53	5.07



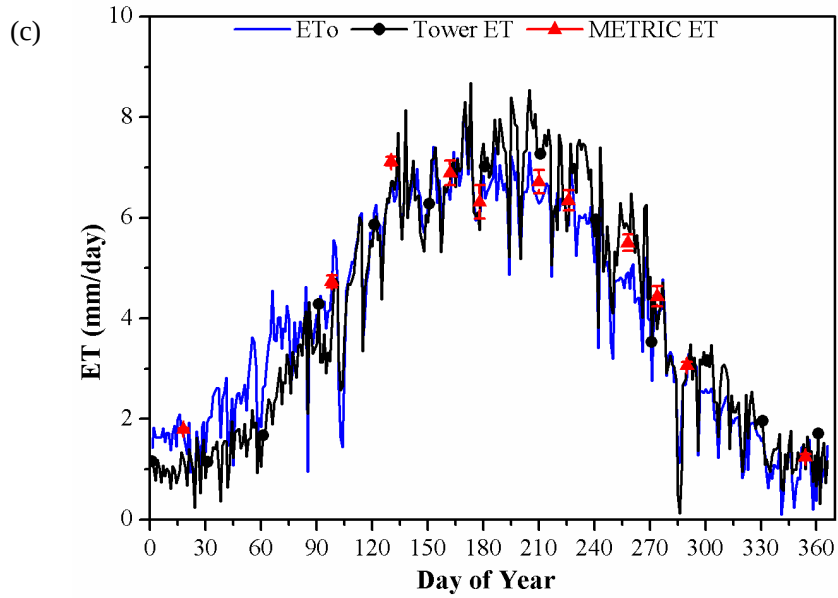
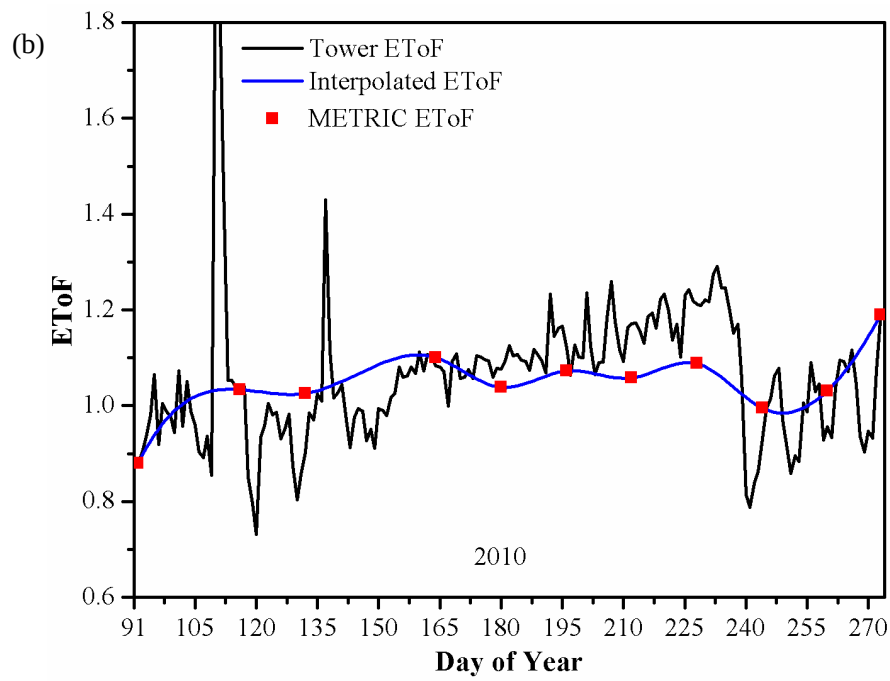
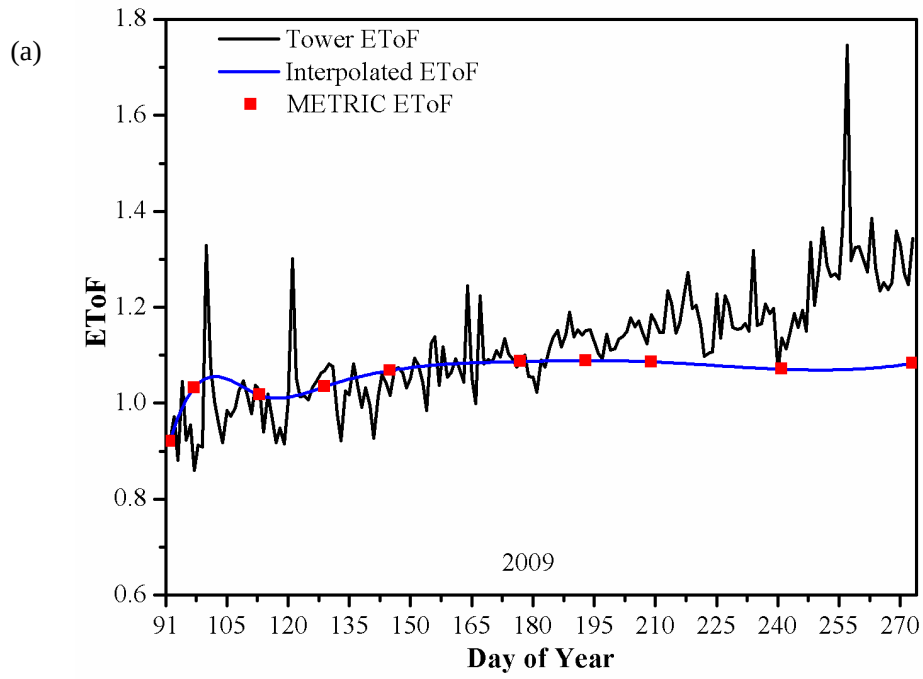


Figure S2. Time series of daily ET measured by the flux tower (black line) and estimated by the METRIC approach (red triangle points) over almond trees in (a) 2010, (b) 2011, and (c) 2012. The daily reference ET₀ of grass from Belridge CIMIS station was also shown here in blue line.



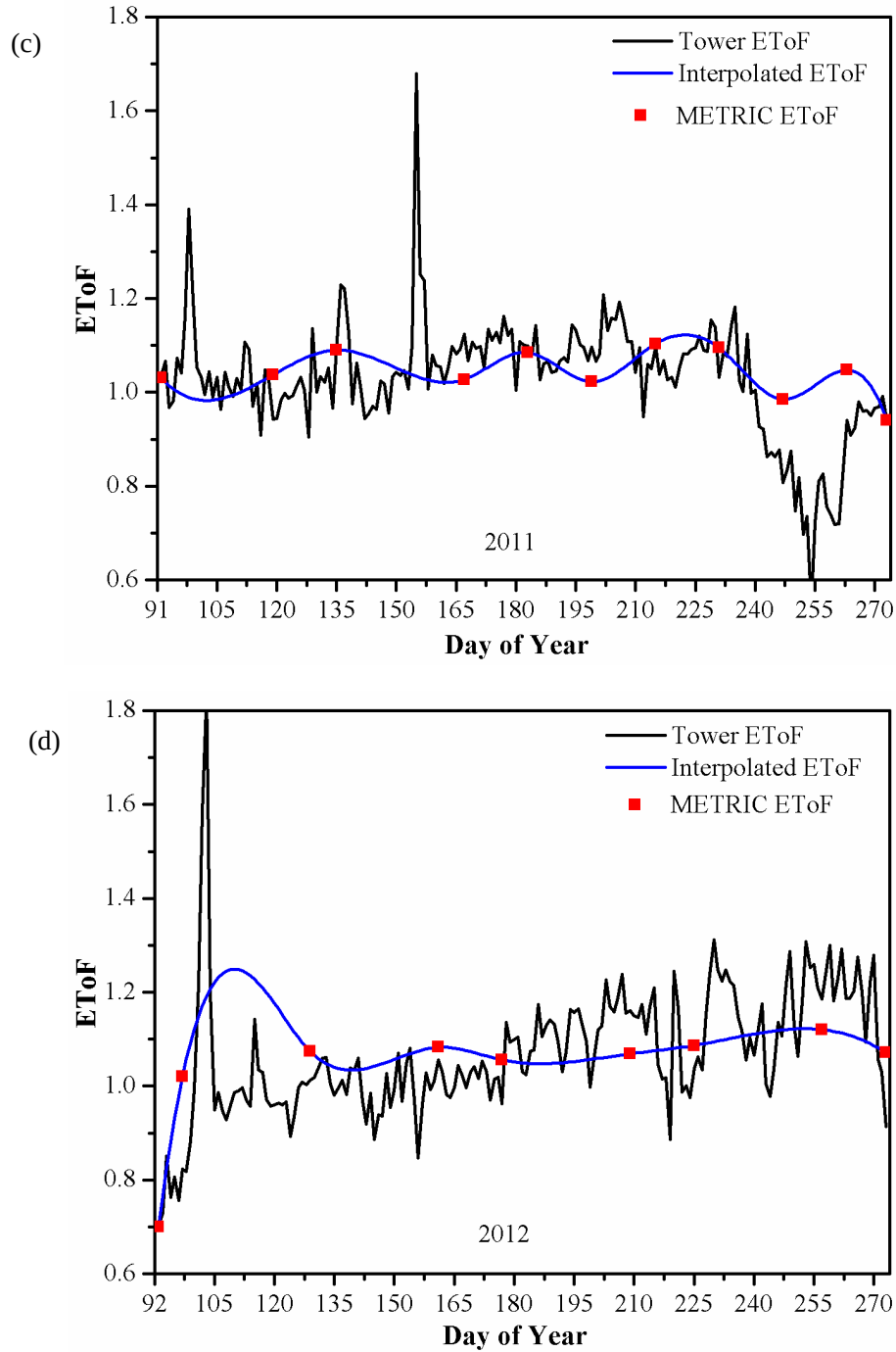


Figure S3. Time series of daily ET_oF from ground-based measurements (ET_a/ET_o , in black) and from METRIC estimated ET averaged over 2×3 pixels centered around EC tower at Landsat overpass dates (red dots) from April to September in 2009-2012. Also shown is the cubic spline interpolation of METRIC daily ET_oF using daily ET_oF estimates on four adjacent Landsat overpassing dates (in blue).