

Evaluation of five satellite top-of-atmosphere albedo products over land

Chuan Zhan ¹, Richard P. Allan ², Shunlin Liang ^{3,*}, Dongdong Wang ³ and Zhen Song ⁴

¹ State Key Laboratory of Remote Sensing Science, Faculty of Geographical Science, Beijing Normal University, Beijing 100875, China; zhanchuan@mail.bnu.edu.cn

² Department of Meteorology and National Centre for Earth Observation, University of Reading, Reading RG6 6BB, UK; r.p.allan@reading.ac.uk

³ Department of Geographical Sciences, University of Maryland, College Park, MD 20742, USA; ddwang@umd.edu

⁴ Department of Geosciences, Texas Tech University, Lubbock, TX 79409, USA; zhen.song@ttu.edu

* Correspondence: sliang@umd.edu; Tel.: +1-301-405-4556

Received: 20 Oct 2019; Accepted: 04 Dec 2019; Published: 6 December 2019

Supplementary Materials: The following are available online at www.mdpi.com/xxx/s1; Figure S1: Ten regions of the world; Figure S2: Monthly mean TOA albedo deseasonalized anomalies of different regions; Figure S3: Absolute value of monthly mean TOA albedo of different regions.

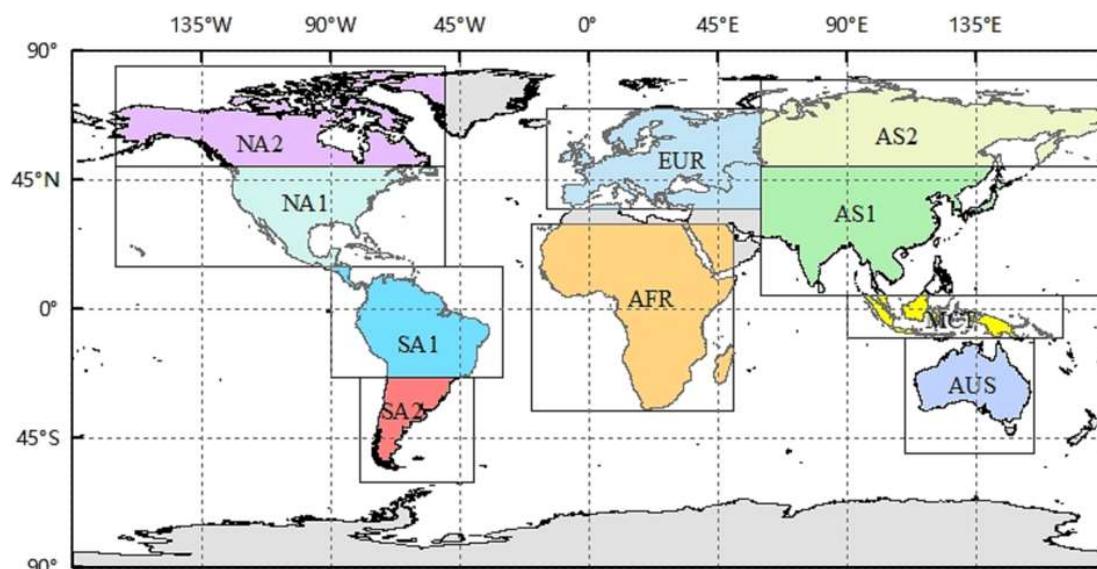
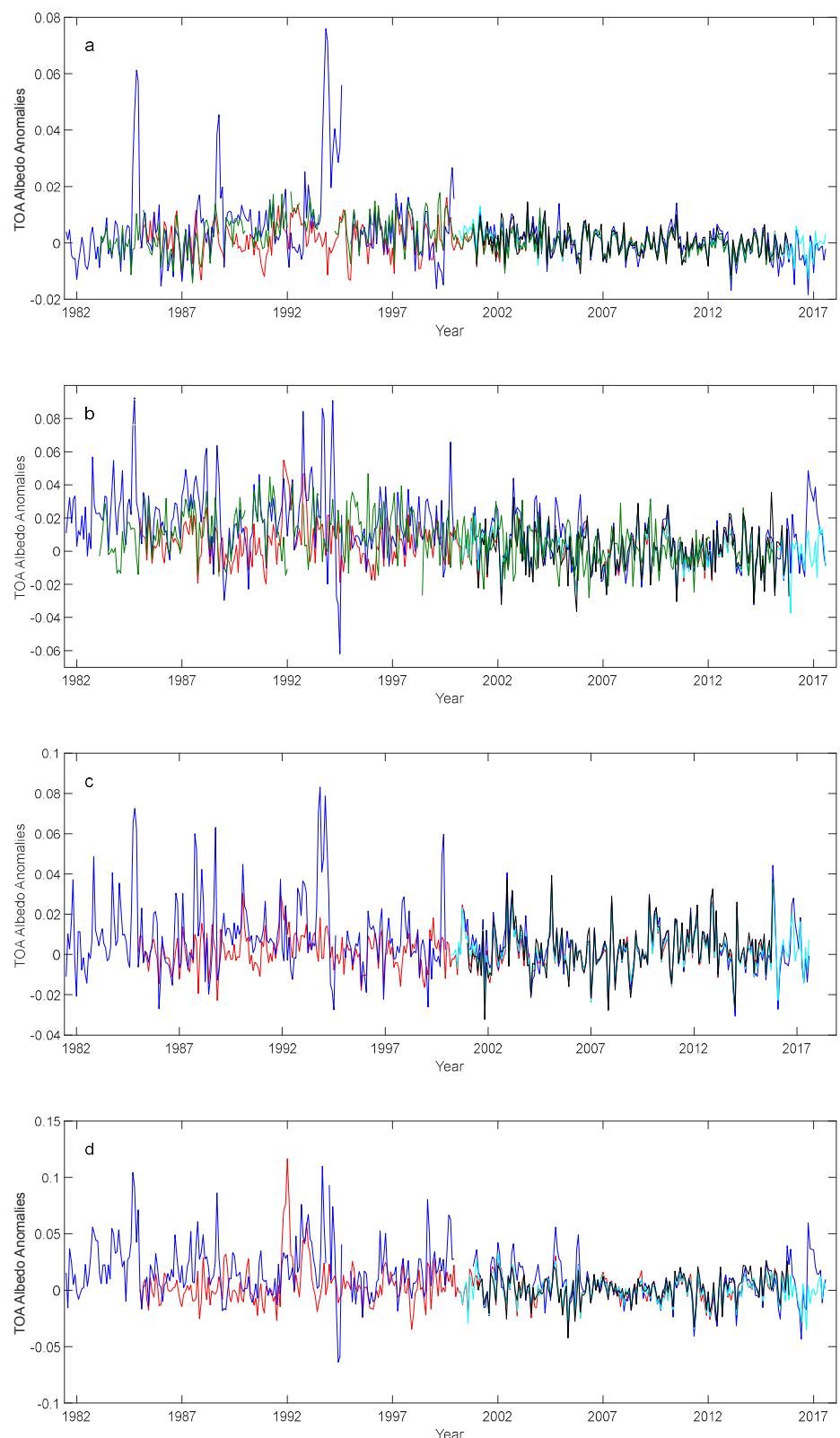
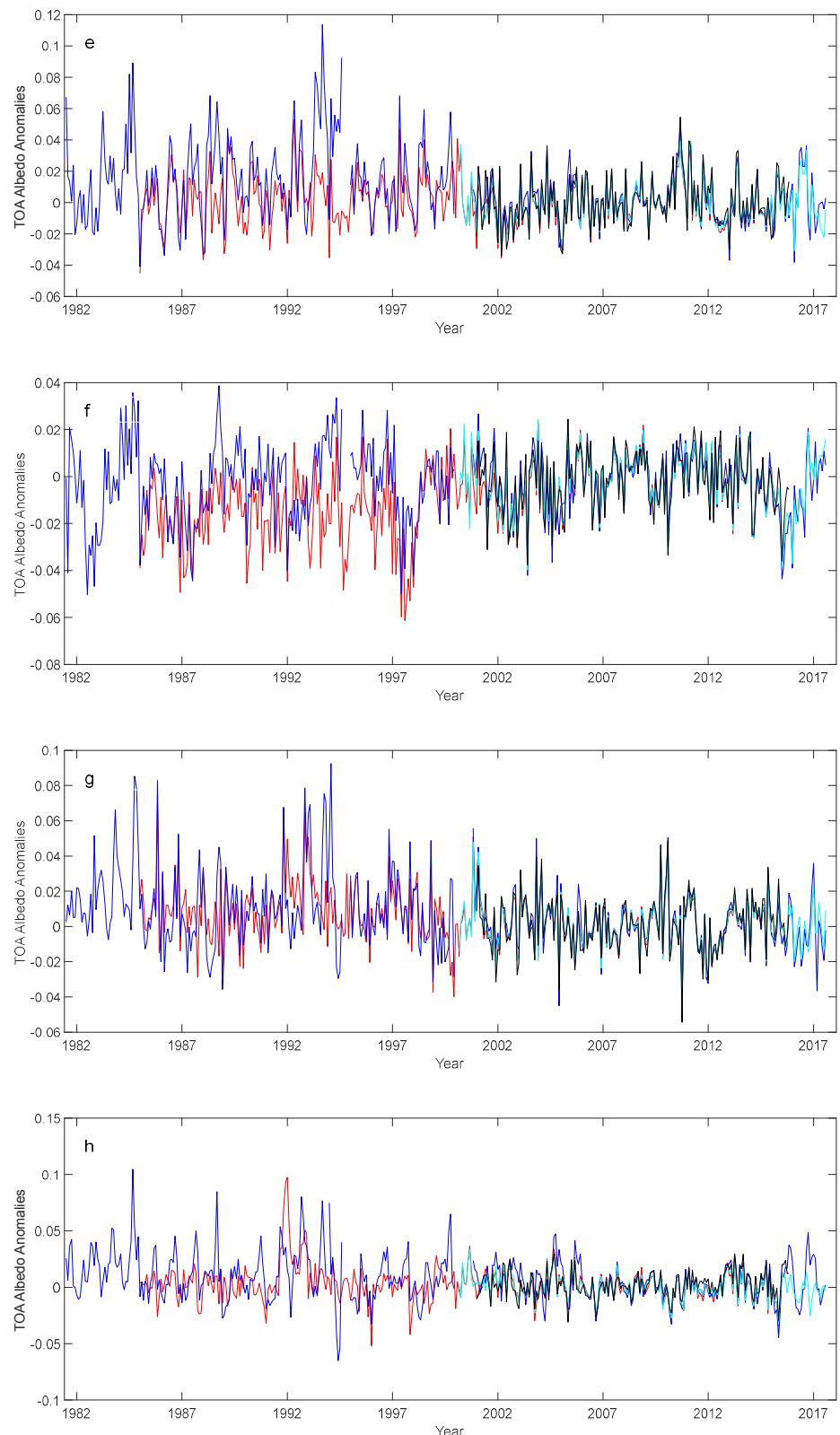


Figure S1. Ten regions of the world (NA1 (North America1): 15°–50°N, 165°–50°W; NA2 (North America2): 50°–85°N, 165°–50°W; SA1 (South America1): 23.5°S–15°N, 90°–30°W; SA2 (South America2): 60°S–23.5°S, 80°–40°W; EUR (Europe): 35°–70°N, 15°W–60°E; AFR (Africa): 35°S–30°N, 20°W–50°E; AS1 (Asia1): 5°N–50°N, 60°E–150°E; AS2 (Asia2): 50°N–80°N, 60°E–180°E; MCT (Maritime Continent): 10°S–5°N, 90°E–165°E; AUS (Australia): 50°S–10°S, 110°E–155°E).





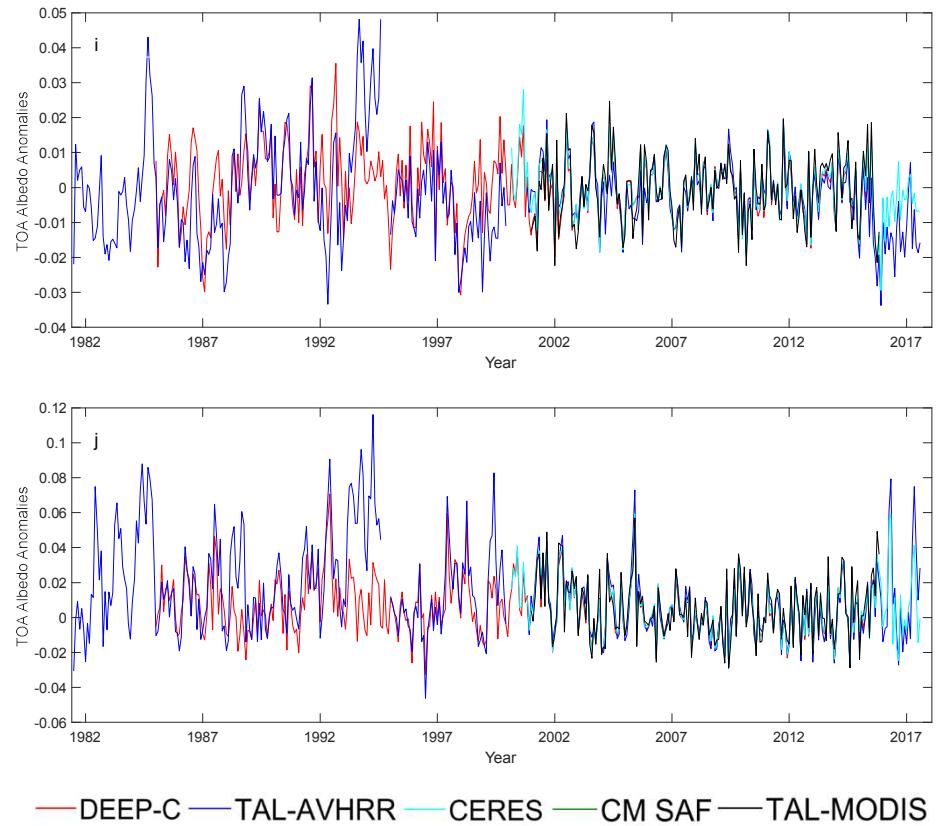
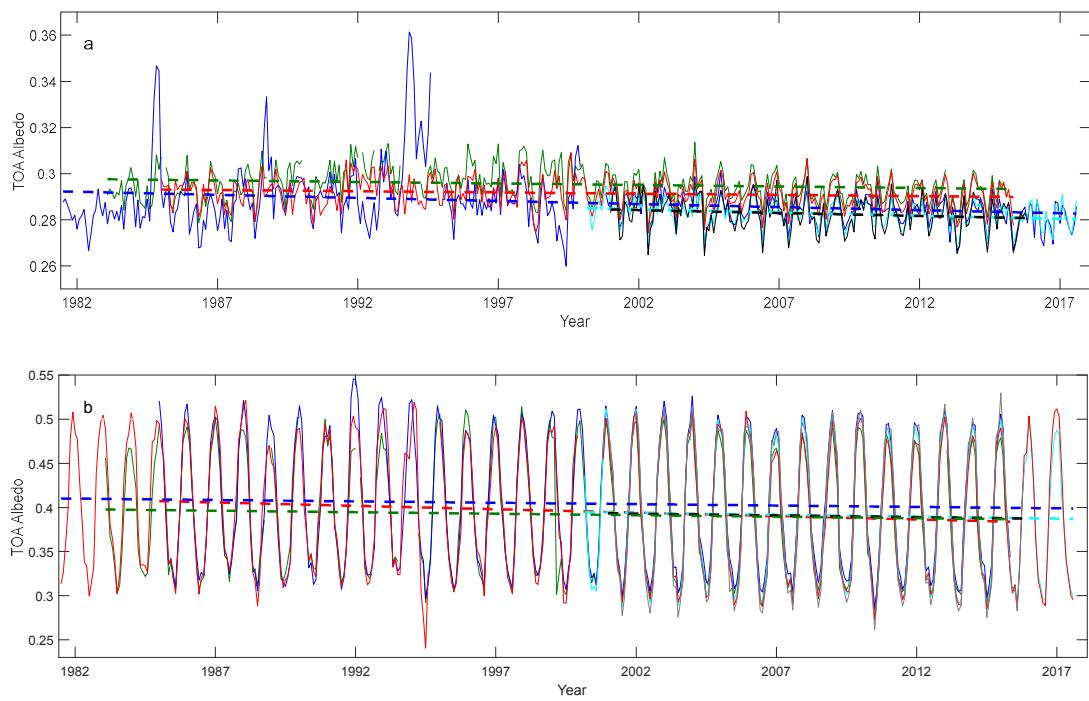
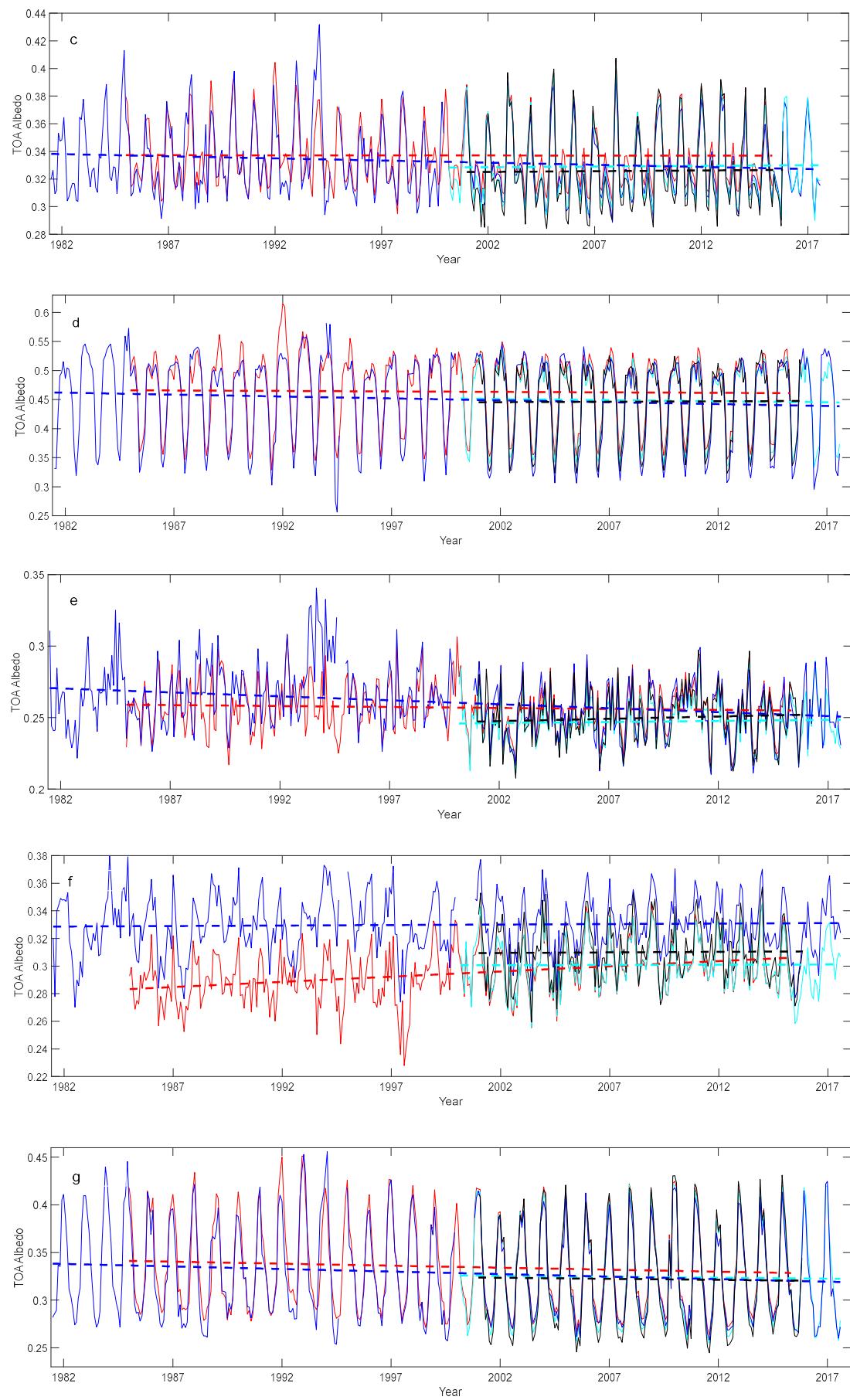


Figure S2. DEEP-C, TAL-AVHRR, CERES, CM SAF and TAL-MODIS monthly mean TOA albedo deseasonalized anomalies of different regions with a common base period 2006-2009. (a) AFR; (b) EUR; (c) AS1; (d) AS2; (e) AUS; (f) MCT; (g) NA1; (h) NA2; (i) SA1; (j) SA2.





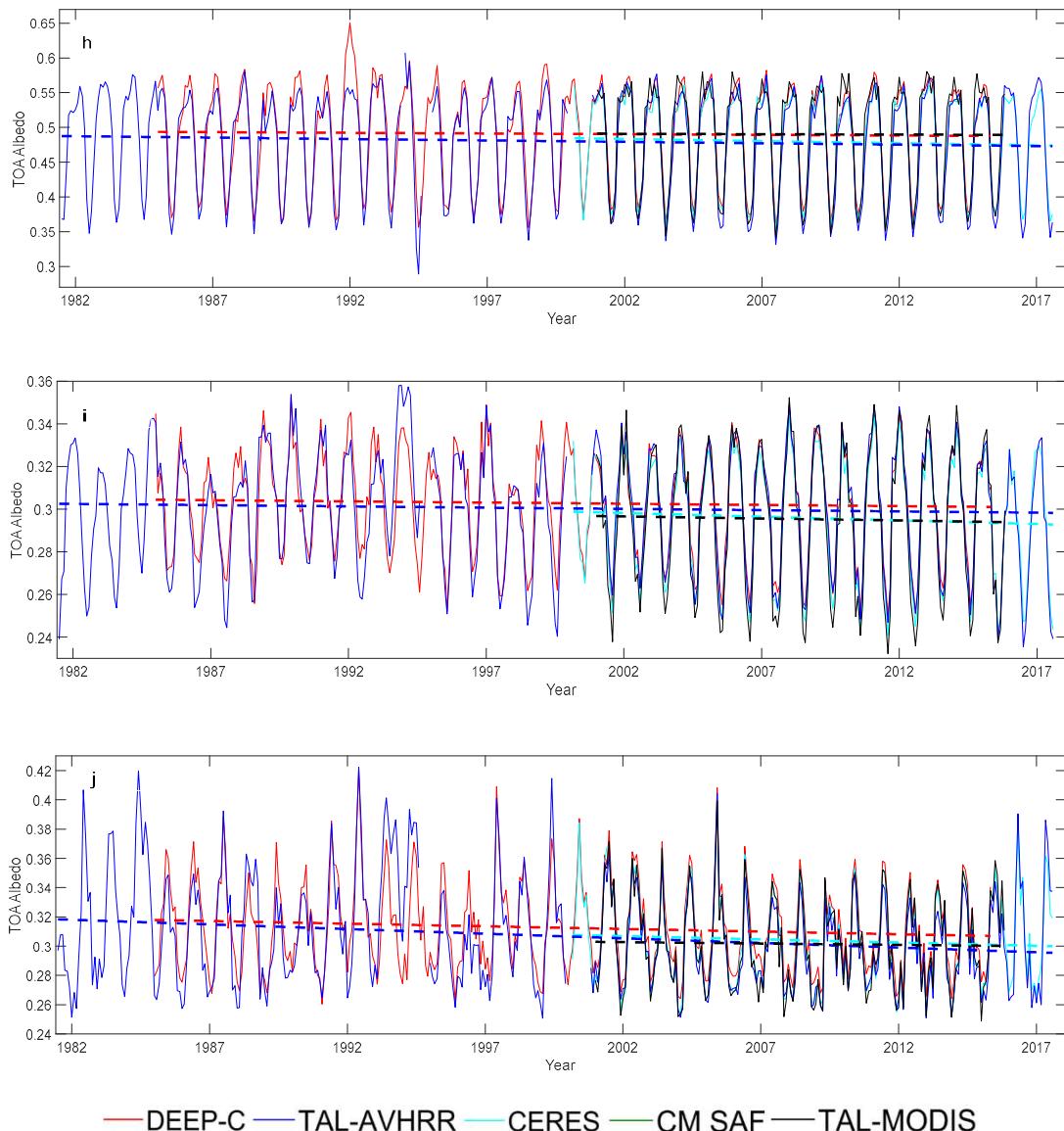


Figure S3. Same as Figure S2, but for the absolute value.