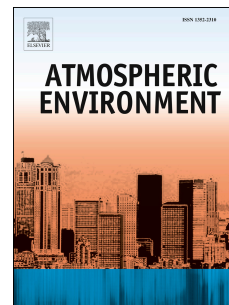


Accepted Manuscript

Simulations of the effect of intensive biomass burning in July 2015 on Arctic radiative budget

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PII: S1352-2310(17)30676-3

DOI: [10.1016/j.atmosenv.2017.10.015](https://doi.org/10.1016/j.atmosenv.2017.10.015)

Reference: AEA 15609

To appear in: *Atmospheric Environment*

Received Date: 8 June 2017

Revised Date: 4 October 2017

Accepted Date: 6 October 2017

Please cite this article as: Markowicz, K.M., Lisok, J., Xian, P., Simulations of the effect of intensive biomass burning in July 2015 on Arctic radiative budget, *Atmospheric Environment* (2017), doi: 10.1016/j.atmosenv.2017.10.015.

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1 **Simulations of the effect of intensive biomass burning in July 2015 on Arctic radiative**
2 **budget**

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10 **Keywords:** aerosol, radiative forcing, radiative forcing efficiency, single scattering albedo,
11 biomass burning, smoke

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14 **Key points:**

15 aerosol, biomass burning, radiative forcing, radiative forcing efficiency, aerosol optical depth,
16 single scattering albedo

17
18 **Highlights:**

- 19 - Intensive boreal biomass burning event in 2015 impact on radiation budget in Arctic
20 - Long-range transport of biomass burning aerosol in middle and lower troposphere
21 - NAAPS model shows quite well agreement with measured AOD
22 - Strong radiative cooling at the surface and warming at top of the atmosphere
23 - Surface forcing efficiency exceed $-100 \text{ W/m}^2/\tau_{550}$ over Svalbard and Siberia

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