

## **NILU-FLEXPART Kelut ash and SO<sub>2</sub> simulations**

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### Forecast specifications

**Model:** : FLEXPART Lagrangian Particle Dispersion Model

**Meteorological data:** GFS 0.5°x0.5° horizontal degree, 3-hour temporal resolutions

### **Source term:**

*ASH:*

Eruption start: 13 Feb 2014 16:30 UTC

Max plume heights:

20140213 163000 20140213 164500 26.0 km a.s.l

20140213 164500 20140213 170000 24.0 km a.s.l

20140213 170000 20140213 200000 19.0 km a.s.l

Vertical distribution: Gaussian vertical mass distribution with most of the mass (50%) released at plume height top.

Fine ash fraction = 0.03%

Total fine ash emitted: ~1.0 Tg

*SO<sub>2</sub>:*

Total SO<sub>2</sub> emitted: 0.15 Tg

Eruption start, max plume heights and vertical distribution equal to that of ash.

### **Output:**

Total column values with 1 hours time resolution, on a global domain of 0.5°x0.5° horizontal resolution

Simulation length: 48 hours after last release (until 23 Feb 19:30 UTC)

Evaluation:

Initial comparison to satellite data in attached ppt.