



Early warnings

Volcanic SO₂ height

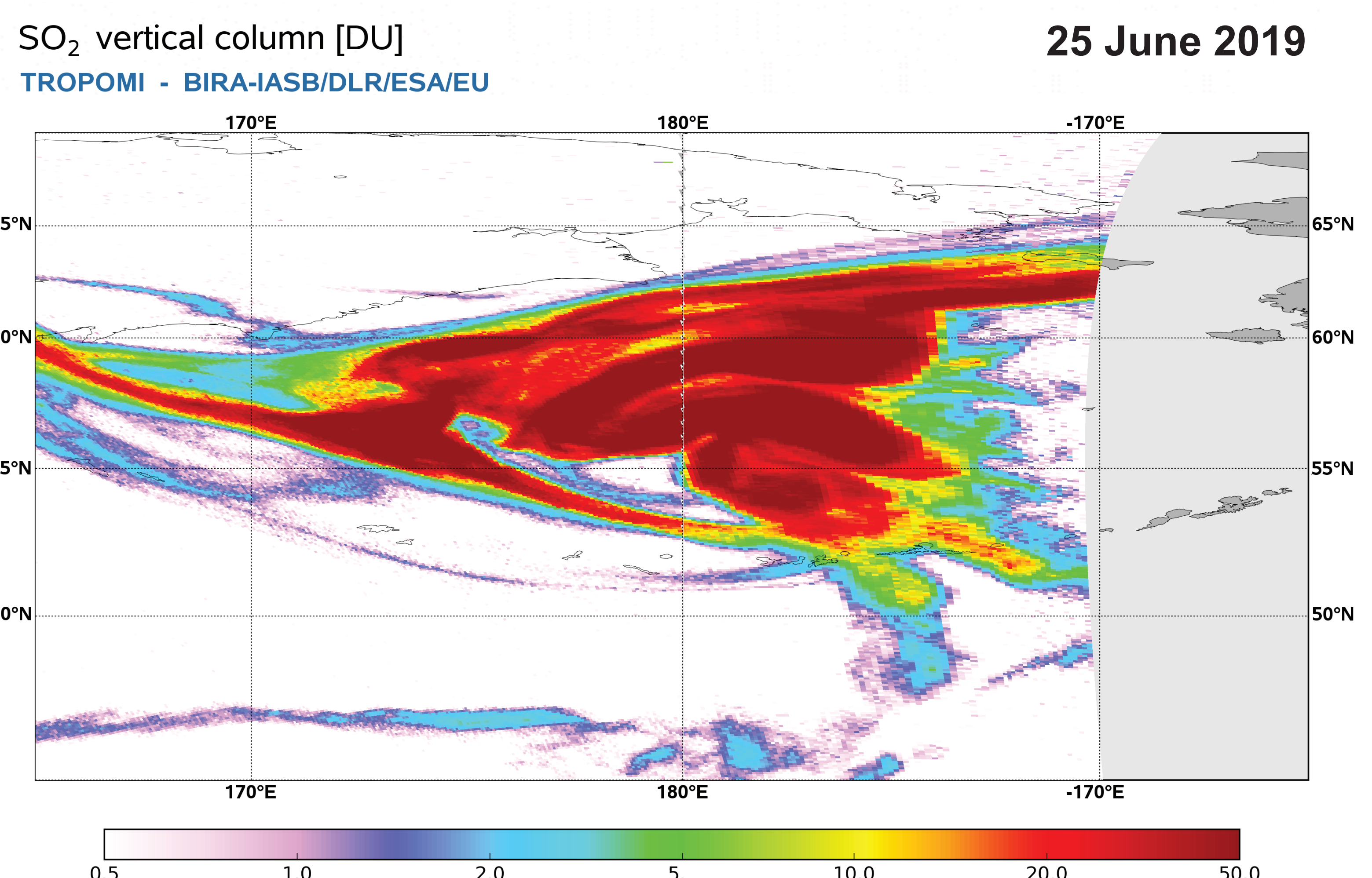


Overview:

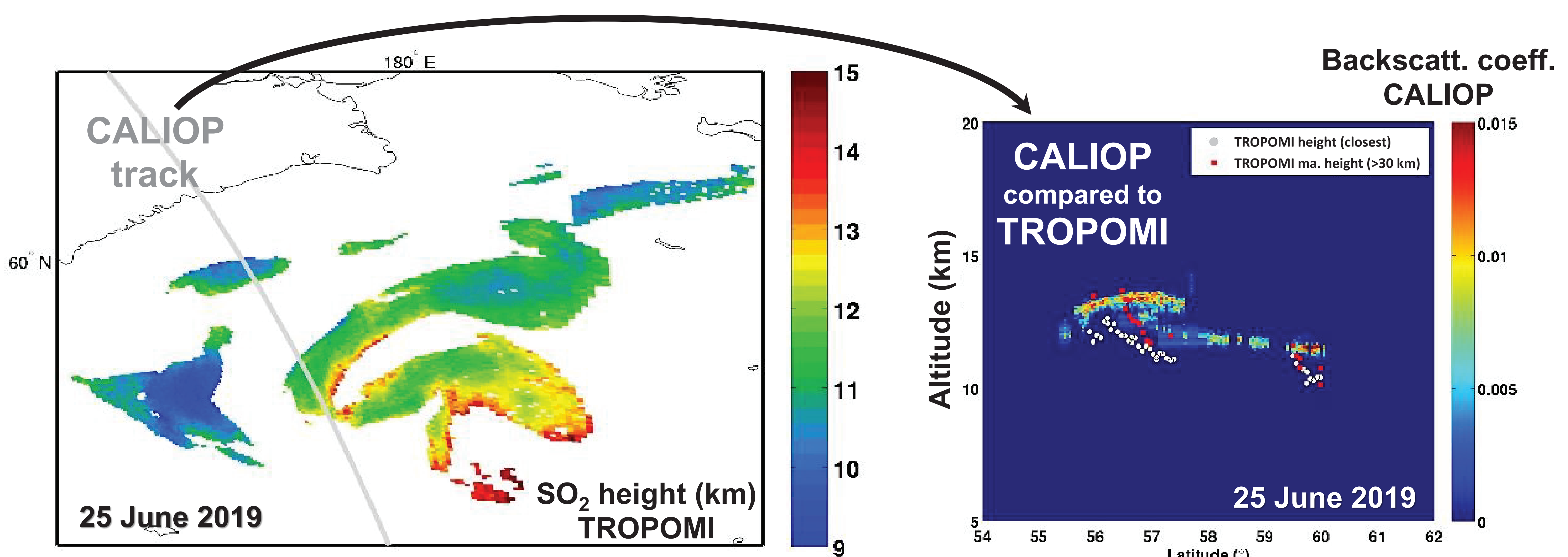
Volcanic emissions, like **sulphur dioxide (SO₂)**, can be a major risk for ATM. In the frame of **OPAS** (*Operational alert Products for ATM via SWIM*) **Engage KTN** project related to Thematic Challenge 3, a **new product** is in development (**SO₂ height from TROPOMI satellite sensor**), with the aim of including it in an existing **Early Warning System (SACS; <http://sacs.aeronomie.be>)**.



Raikoke eruption (June 2019):

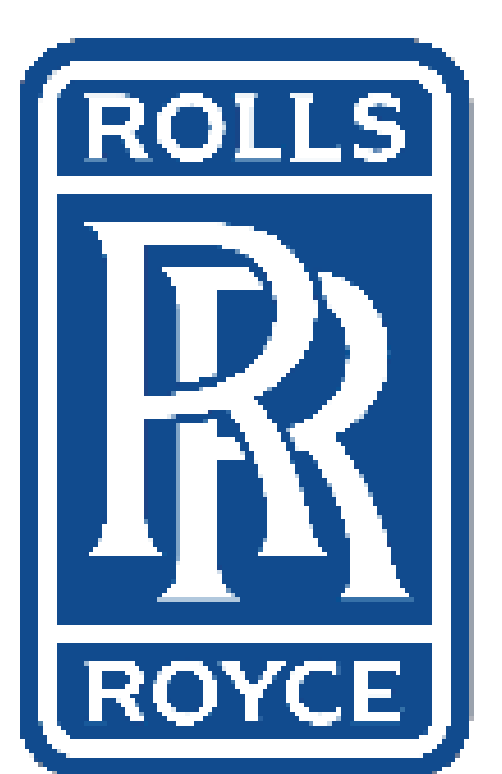


A vast plume shot up from Raikoke volcano (Kuril Islands, Kamchatka). This eruption emitted a **huge ash cloud** with a **gigantic amount of SO₂** (mass of 1.5 Tg; **height up to ~15 km**). Most important eruption affecting long lines air traffic (Pacific) since Sarychev eruption (2009).



Next tasks of OPAS:

- to operationnaly run SO₂ height from TROPOMI
- to implement SO₂ height in SACS Early Warning System
- to propose OPAS as a SWIM service with a YELLOW profile



brenot@aeronomie.be

2 – 6 December 2019
Athens, Greece



founding members

