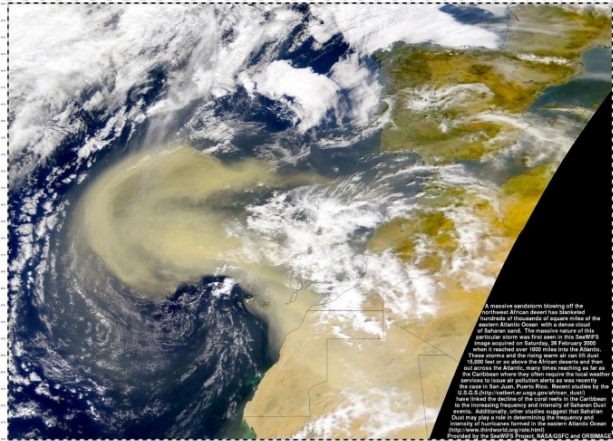
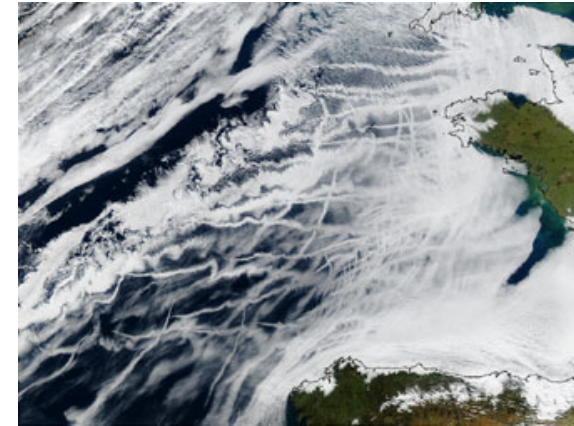


Direct Effect



Indirect Effect



Module 3: Radiative Forcing of Short-Lived Components

Jón Egill Kristjánsson (UiO)

Gunnar Myhre (Cicero)



Objectives

- **Main objective:** *To improve the estimates of RF by increasing the degree of explicit treatment of aerosols, clouds, short-lived gases and their interactions in NorESM*
- **Sub-objectives:**
 - (i) To properly account for the contribution of convective clouds to the aerosol **indirect effect**
 - (ii) To improve the understanding of the **indirect effect** of cold clouds
 - (iii) To improve estimates of the aerosol **direct effect**
 - (iv) To improve the representation of the time evolution of **SLFCs**

Module Overview

- **WP3.1:** The **Indirect Effect** of Convective Clouds
- **WP3.2:** Cloud Droplet Activation – *talk by Risto Makkonen*
- **WP3.3:** Anthropogenic Ice Nuclei and **Indirect Effect** – *talk by Helene Ø. Muri*
- **WP3.4:** Better Understanding of the **Direct Aerosol Effect** incl. Absorbing Aerosols – *talk by Gunnar Myhre*
- **WP3.5:** Better Understanding of the Time Evolution of the RF of **SLCFs**