

PACES

air Pollution in the Arctic:
Climate Environment and Societies



Second PACES Science Workshop

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June 27-19, 2017 | Victoria, Canada

Sponsors:



Atmosphere WG



French Arctic Initiative
(CNRS)



Environment and
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PACES SCIENCE

MID-LATS

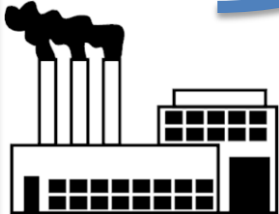
ARCTIC

Long-range transport

Remote forcing



Remote pollution



Natural cycles



Chemical, aerosol processing, scavenging, aerosol-cloud interactions

Heat transport

Local forcing



Local pollution



Pollutant deposition



CLIMATE

ENVIRONMENT

SOCIETY / ECONOMY



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Victoria, Canada

27-29 June



Workshop Aims

- To review **new science on Arctic air pollution**
 - To **discuss PACES activities/plans** being developed under WG1 (IMPAACT) & WG2
 - To discuss possibilities for **new PACES activities**, possibly linked to other initiatives like CATCH, MOSAiC
 - To **explore links between PACES and AMAP Expert Group on Short-Lived Climate Forcers** (*joint session on 29 June*)
- **Input to the draft Implementation Plan (publication autumn 2017)**



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Workshop Programme

27 June

Session 1: Long-range transport

Session 2: Feedbacks between anthropogenic pollution and natural cycles

Session 3: Arctic air pollution: Local processes and societal interactions

28 June

Session 4: Towards improved predictive capability

Session 5: Posters

Session 6: IMPAACT planning

Group dinner – Milestones restaurant

June 29

Session 7: Arctic Air Pollution and Climate

Session 8: PACES future plans

Joint session PACES and AMAP EG SLCFs



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Workshop Highlights

- Long-range transport of pollution to the Arctic is intimately linked to Arctic climate change and changes in large-scale circulation patterns but such linkages require improved quantification
- Natural sources of trace constituents in the Arctic such as dust aerosols or biogenic hydrocarbons, and their potential evolution as a result of climate change, are poorly constrained
- Large uncertainties surround the formation and processing of local air pollution under very cold, dry, stable conditions in the Arctic
- Model treatments of wet deposition and chemical/aerosol processing are still significant and are motivating the planning of a new field experiment (IMPAACT) designed to sample air masses in a quasi-Lagrangian fashion during transport of pollution from Asia to the Arctic