PAN-EURASIAN EXPERIMENT (PEEX) PROGRAM OVERWIEV -

TOWARDS COORDINATED COHERENT DATA SYSTEMS ENABLING SERVICES FOR THE SOCIETY

H.K. Lappalainen[1,2], T..Petäjä[1], V-M.. Kerminen[1], R.Makkonen[1], A.Malkamäki[1], P. Alekseychik[1], N. Zaitseva[3], J. Kujansuu[1], T. Ruuskanen[1], A. Lauri[1], E. Kyrö[1], S. Mazon[1], A. Scherbinin[4], P. Konstantinov[5], M. Kaukolehto[1], N. Chubarova[5], T. Laurila[2], E. Asmi[2], S. Juhola[4], J. Bäck[6], T. Vesala[1], P. Hari[6], M.Arshinov[7], A.Mahura[8], S. Arnold[9], D. Spracklen[9], A. Ding[10], C. Fu[10] H-C. Hansson[11,], V. Melnikov[12,13], G. Matvienko[7], A. Baklanov[14], Y.Viisanen[2], N. Kasimov[5], H . Guo[15], V. Bondur[16], S. Zilitinkevich[1,2,17] and M. Kulmala[1]

[1)]Dept. of Physics, University of Helsinki, Finland.
[2)]Finnish Meteorological Institute, Helsinki, Finland
[3)] Dept. of Earth Sciences, Russian Academy of Sciences, Russia
[4)] Dept. of Environmental Sciences, University of Helsinki, Finland.
[5)] Moscow State University, Russia
[6)] Dept. of Forest Ecology, University of Helsinki, Finland
[7)] Institute of Atmospheric Optics, Tomsk 634055, Russia
[8)] Danish Meteorological Institute, Research and Development Department, 2100, Copenhagen
[9)] Institute for Climate and Atmospheric Science, School of Earth and Environment, University of Leeds, Leeds, LS2 9JT, UK
[10)] Institute for Climate and Global Change Research & School of Atmospheric Sciences, Nanjing University, 210023 Nanjing, China'
[11)] Dept. of Environmental Science and Analytical Chemistry, Stockholm University, Sweden
[12)]) Tyumen State University, Russia
[13)]Tyumen Scientific Center, Siberian Branch, Russian Academy of Science, Russia
[14)]World Meteorological Organization, 1211 Genève, Switzerland
[15)] Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing 100101, China
[16)] AEROCOSMOS Research Institute for Aerospace Monitoring, Moscow, Russia
[167] Dept. of Radiophysics, Nizhny Novgorod State University , Russia

hanna.k.lappalainen(at)Helsinki.fi

Pan-Eurasian Experiment (PEEX) initiative (https://www.atm.helsinki.fi/peex/) is an international, multi disciplinary, multiscale bottom up initiative established in 2012 (Kulmala et al. 2015, 2016; Lappalainen et al. 2014, 2016, PEEX Science Plan) The main focus of the initiative is to solve interlinked global environmental challenges influencing societies in the Northern Eurasian region. The goal is to solve with comprehensive, continuous observations the scientific questions that are specifically important for the Arctic-boreal region in the coming years, in particular the global climate change and its consequences to nature and the Northern societies. PEEX aims to deliver novel ground based land-atmosphere data for constructing reliable early warning systems (floods, forest fires, droughts), for predicting extreme weather events and estimating the environmental contamination of industrial accidents

One of the concrete tasks of the PEEX is to establish a coordinated, coherent land based PEEX observation network over the Northern Eurasian region in collaboration with European Research infrastructures (ICOS, ACTRIS, ANAEE) and GEOSS-Cold regions ground based component (Alekseychik et al. 2016). The concept of the hierarchical PEEX in situ station network is based on the know-how from 20 year development of the SMEAR-II flagship station measurement theory and techniques (Hari et al. 2016). The backbone of the station network is built on the existing biosphere (ecological) and atmospheric observation networks in collaboration with European, Russian, Chinese and global partners.

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