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NILU – KEY AREAS OF WORK

Environmental research with emphasis on the sources of airborne pollution, atmospheric transport, transformation and deposition.

Assessment of the effects of pollution on ecosystems, human health and materials.

Performing national tasks on behalf of the Norwegian Ministry of Environment and the Norwegian Research Council.

International environmental assessment projects. For instance participation in The Co-operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), The European Topic Centre on Air and Climate Change, Topic Centre of European Environment Agency (EEA).

Delivering systems for air quality surveillance, monitoring and air quality management.

Performing environmental impact assessments and abatement strategy planning for industries, authorities and urban areas world wide.

Hosting of international databases containing measurement data from atmospheric research and monitoring programmes.

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MONITORING AS BASIS FOR RESEARCH

Monitoring is an important part of environmental and natural science, although often under-rated by funding institutions and the public. NILU goes against the stream and builds up its monitoring activities continuously. We emphasize not only the measurements themselves, but also the whole chain from monitoring to the presentation of tailor-made information on web, mobile phones or personal computers.



Through our observatories in Antarctica, in the Arctic and in Norway, we collect invaluable data not only for our own eminent scientists, but also to the benefit of scientists all over the world.

Some of our data series are more than 30 years old, and this puts us in a unique position. The institute is in fact an international centre for data.

NILU's strong footing in European air research and our position as data collector and provider, originates from studies of long-range transport of air pollutants and acid rain in the 1970s. This involvement has continued in the European Monitoring and Evaluation Programme (EMEP) established in 1977 in which NILU has a central position as Chemical Co-ordinating Centre.

In 2006 we invested heavily in an upgrade of our observatory, called Troll, in Antarctica. Combined with our flagship observatory in the Arctic, Zeppelin, NILU's role as a global provider of data is more important than

ever. Bi-polar data concerning climate change, stratospheric ozone layer depletion, trans-boundary air pollution and global distribution of toxic pollutants will be of more and more importance in years to come.

NILU also provides monitoring networks and services for industry and environmental agencies world wide. This includes equipment as well as in house developed software for data acquisition, quality assurance, data storage, forecasting, scenario modelling and data presentation. NILU is a supplier of Air Quality Management Systems. You will find us in inter alia China, Vietnam, Abu Dhabi and South Africa. Usually the delivery is combined with substantial training and institutional building in order to ensure sustainability. Our monitoring skills have become the basis for a wide variety of science based services and products

NILU is a well renowned institute, not only in Europe, but globally. Our 145 employees, of whom 75 are scientists, produce cutting edge research, products

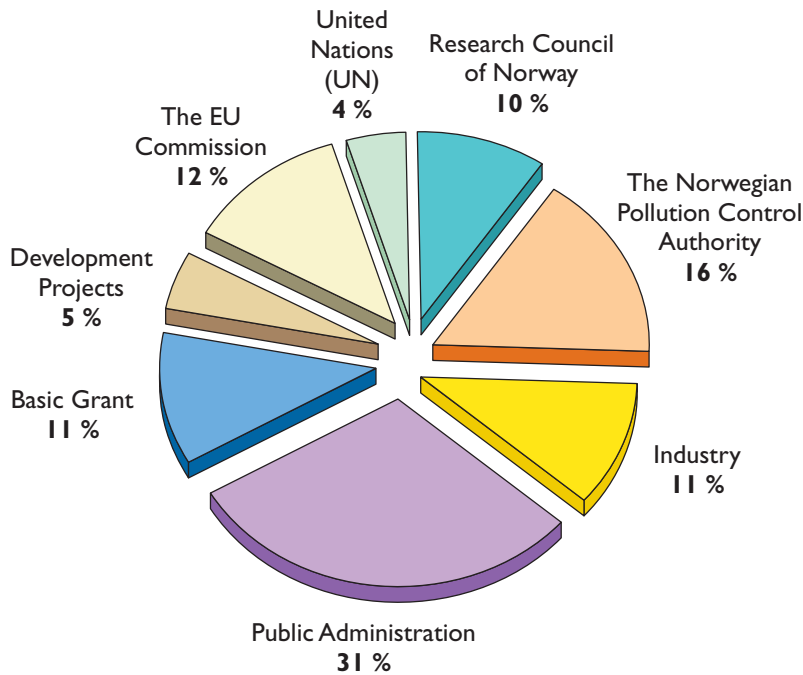
and services within the whole spectre of climate change, air quality, air pollution, atmospheric composition, long-range transport of air pollution and environmental pollutants. You can read much more about the various activities in this annual report.

But without monitoring, it will be less research and less new knowledge.

Gunnar Jordfald
Director NILU

AIR QUALITY MANAGEMENT WORLDWIDE

NILU provides expertise in air pollution research and air quality management worldwide.








Many of NILU's tasks are related to urban and residential air pollution. Emission from industrial sources, energy production and traffic cause serious health hazards for millions of people.

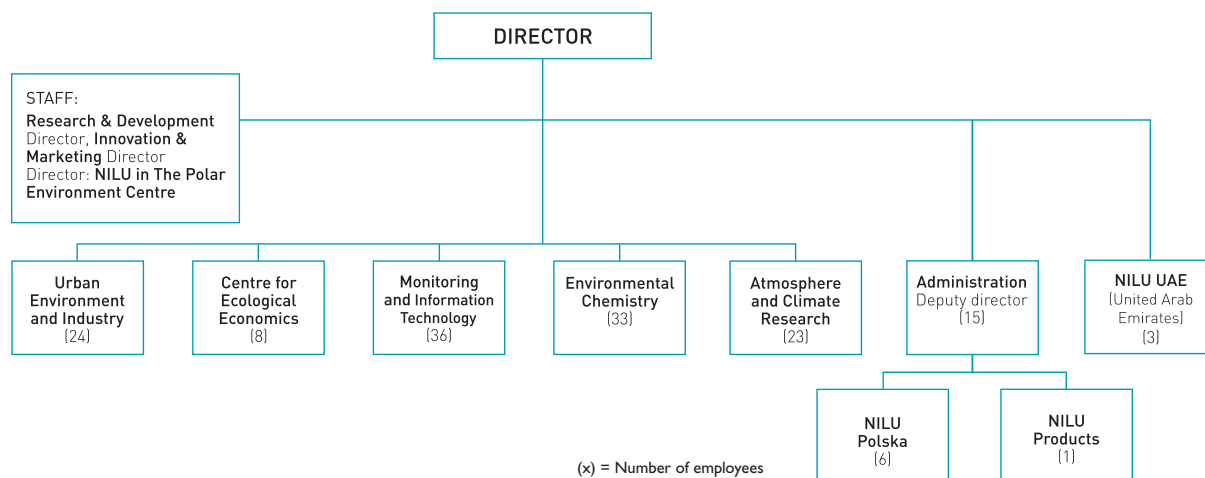
The World Health Organization estimates that ambient and indoor air quality is among the five leading factors associated with impaired health worldwide. NILU has in 2006 been working with either air quality management, air quality monitoring or impact assessment in the following countries outside Europe:

- Bangladesh
- Botswana
- China
- Egypt
- India
- Senegal
- United Arab Emirates
- Vietnam
- Saudi Arabia
- South Africa

NILU DEPARTMENTS

Department for Urban Environment and Industry	Centre for Ecological Economics (CEE)	Department for Monitoring- and Information Technology	Department for Environmental Chemistry	Department for Atmospheric and Climate Research
<p>The Department deals with emissions from industry, energy production and traffic in urban and residential areas. Activities include measurements, modelling, consequence analyses, environmental impact assessment and abatement strategy planning. The Department also estimates human exposure based upon dispersion modelling, measurements and micro environmental analyses.</p>	<p>The CEE deals with cost-benefit analyses and socio-economic studies of the impact of pollution on the environment and human health. Supports authorities in developing environmental policies.</p>	<p>The Department develops, operates and maintains instruments for measuring air quality and meteorology. NILU's measurements are accredited in accordance with NS-EN ISO/IEC 17025. The department delivers IT-products and services to NILU and NILU's external projects.</p>	<p>The Department determines a large number of inorganic and organic compounds in samples of air, water, sediments and biological material. The department has some of the most sophisticated and advanced instrumentation on the market and is accredited in accordance with NS-EN ISO/IEC 17025.</p>	<p>The Department deals with air pollution on the regional (European) and global scale, with particular emphasis on aerosols, acid deposition, photo-oxidants, toxic compounds, stratospheric- and ground level ozone and climate change.</p>
 <p>Director Elin Marie Dahlin</p>	 <p>Director Jozef Pacyna</p>	 <p>Director Magne Birger Osmundsen</p>	 <p>Director Ole-Anders Braathen</p>	 <p>Director Kjetil Tørseth</p>

ORGANISATION



NILU TOOLS

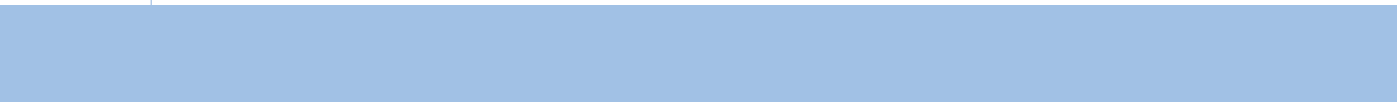
Air quality management





NILU has developed an Air Quality Management System (AQMS) that identifies the most cost-effective measures to reduce the impact of air pollution.

Air quality monitoring

The NILU-developed system for air pollution surveillance is named "AirQUIS". AirQUIS is a planning tool for optimal abatement and air quality improvement. It is one of the most advanced and flexible

surveillance and planning tools available on the market. Measurements, modelling, environmental impact assessment and abatement strategy planning are all parts of the system.



Branch office NILU UAE (United Arab Emirates)	NILU Polska Sp.zo.o	NILU Products AS	Department for Administration
<p>The branch office NILU UAE serves the Middle East-market. It delivers systems for air quality surveillance and monitoring, advanced management tools and support services. Constructs ambient monitoring stations and networks combined with technical operation and maintenance. It operates a local reference laboratory.</p>	<p>NILU Polska deals with air quality and air quality management, as well as projects in renewable energy technologies. NILU Polska participates in several EU research projects, and national projects in Poland.</p>	<p>NILU Products AS is a subsidiary of NILU. The company holds the rights to NILU-developed products, equipment and systems. Manages commercial aspects of manufacturing, marketing and sales. Products include instruments and equipment for measurements and analyses of air pollutants.</p>	<p>The Department:</p> <ul style="list-style-type: none"> • Accounts group (included purchase) • Archive • Communications-group • Library • Information • Printing
 <p>Director Trond Böhler</p>	 <p>Director Robert Piątek</p>	 <p>Director Paal Berg</p>	 <p>Director Paal Berg</p>



ABOUT NILU

NILU's head office is located at Kjeller outside Oslo. A specialised office for Arctic related matters is an integrated part of the Polar Environmental Centre in Tromsø. NILU also has a subsidiary company in Poland and a branch office in the United Arab Emirates.

NILU is an independent research foundation established in 1969. The staff, consisting of 145 scientists, engineers and technicians, carries out approximately 200 projects annually for research councils, industries, local, national- and international authorities and organizations.

Our annual turnover is 17 million US\$. Domestic projects provide 64% of the earnings, while the remaining 36% come from international organizations and customers. 12% of the budget is a basic grant from the Norwegian Ministry of Environment through the Research Council of Norway. The grant is aimed at supporting NILU as a national environmental research institution.

LABORATORIES

NILU's chemical laboratories are among the most advanced in Europe. They have state-of-the-art analytical equipment, including several high-resolution mass spectrometers. Today, the laboratories determine a broad range of organic and inorganic pollutants and are highly competent both in chemical analysis and in

evaluating environmental impacts. NILU's instrument laboratories carry out sampling and analysis, instrument calibration, maintenance and international intercalibration. The laboratory also develops new instruments and analytical techniques. The laboratories have developed a comprehensive Quality Assurance and Quality Control (QA/QC) system for the operational level of air quality programmes.

QUALITY SYSTEMS

NILU was among the first European air quality laboratories to be accredited according to ISO 17025. In 2006 NILU received its ISO 9001 certification.

NILU has been appointed responsible for the national reference laboratory for air quality in Norway.

INTERNATIONAL ACTIVITIES

NILU works world wide on projects related to air pollution, air quality monitoring and air quality management. We have



over the years carried out many assignments involving the coordination of international environmental research.

One example is the Co-operative Programme for Monitoring and Evaluation of the Long Range Transmission of Air Pollution in Europe (EMEP). Here NILU functions as the Chemical Coordinating Centre (CCC).

Another specific task over the last few years has been the establishment of the EEA Topic Centre on Air quality – in which NILU is one of four core research institutes. NILU is also collecting and storing data, and producing reports for international bodies like the World Meteorological Organisation,



NILU's branch office in the city of Abu Dhabi in the United Arab Emirates..



NILU's office in Tromsø is situated in the Polar Environmental Centre.



The city of Katowice holds NILU's offices in Poland. Picture: Katowice City Council

Paris and Oslo Commission, the Helsinki Commission and the Arctic Monitoring and Assessment Program.

NILU plays an important part in several EU-initiatives concerning environmental research. For the last 15 years NILU has participated in the EU framework programmes for research and technological development (FP's). During 2006 NILU has participated in almost 30 projects under FP5 and FP6.

In the FP6 NILU is a central partner within air pollution in a Network of Excellence, which started on 1 March 2004. This network is called ACCENT – Atmospheric Composition Change: a European Network. In 2002, NILU was appointed as partner in a Nordic Centre of Excellence (NCoE) for excellent research within the fields of biosphere, aerosols, cloud and climate interactions.

International co-operation and exchange of scientists is considered by NILU as one of the major features of multi-disciplinary modern research on environmental issues. Thus, the institute supports all activities connected to researcher exchange and mobility of NILU scientists.

PARTICIPATING IN IPY

NILU is strongly engaged in the activities under the International Polar Year (IPY) 2007-2009. The core project, POLARCAT, is co-ordinated by NILU. In addition NILU participates in about 10 other IPY-projects.

INTERDISCIPLINARY RESEARCH INSTITUTE

Climate research has received worldwide attention in recent years. Our knowledge is growing, but there is still a need for better understanding of the many interacting and feedback mechanisms in the climate system. Climate change issues are a prime example of scientific challenges that need to be addressed in an interdisciplinary context. NILU has an advantage in having been an interdisciplinary institute for years. We have experience in practical multidisciplinary co-operation with other institutes, e.g. in the Polar Environmental Centre in Tromsø and in many EU projects. Joining the newly established Oslo Centre for Interdisciplinary Environmental and Social Research Centre (CIENS) will further extend this expertise.

EUROPEAN TOPIC CENTRE ON AIR AND CLIMATE CHANGE

NILU constitutes one of 11 partners in The European Topic Centre on Air and Climate Change (ETC/ACC)..

The main task of ETC/ACC is to assist the European Environment Agency (EEA) in supporting EU environmental policy and legislative frameworks and allow for adequate responses to emerging needs. Such support is brought through improving monitoring and reporting and integrated assessments. The ETC/ACC activities are focused on the support of two main policy processes and frameworks:

- emissions and air quality
- the climate change issue
- integrated assessment
- the geographical extension of the EU area.

NILU OBSERVATORIES



THE TROLL OBSERVATORY - ANTARCTICA

HM Queen Sonja officially opened the Norwegian Troll station in Queen Maud Land in Antarctica as a year-round observatory on February 12th, 2005. NILU runs a comprehensive atmospheric research and monitoring programme from the station.

Similar activities at the Zeppelin Observatory, gives NILU a unique position in bi-polar atmospheric research and –monitoring. This will be particularly valuable in the investigation of pollution pathways in both hemispheres. In February 2005, NILU started pilot measurements of UV, inorganic compounds and soot (in collabo-

ration with Stockholm University) at Troll. After a significant development and rebuilding in the winter 2006/2007, NILU has increased the atmospheric scientific program at Troll.

NILU's ambition during The International Polar Year (IPY) 2007- 2008, is to establish a long-

term atmospheric research and monitoring programme observing climate gases, environmental pollutants, inorganic and organic compounds, UV, stratospheric ozone and aerosols.

Further information:

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Senior Scientist

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THE BIRKENES OBSERVATORY

Birkenes in Southern-Norway has been in operation since 1971 and is one of the longest-running sites in Europe.

Data from Birkenes have been essential for the study of long-range transport and deposition of air pollution to Scandinavia, essential for establishing international binding agreements for targeting emission reductions (c.f CLTRAP).

The site provides data on deposition in support of effect-oriented studies (surface water acidification, forest damage, material deterioration).

The site has also extensive measurements of heavy metals and persistent organic pollutants (POPs) as part of the OSPAR programme. The site is presently being upgraded and modernized to also include more advanced measurements on particulate matter and climate relevant compounds.

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THE ZEPPELIN OBSERVATORY A GLOBAL WATCHTOWER IN THE ARCTIC



The Zeppelin Observatory is situated in an undisturbed Arctic environment far away from major pollution sources. The remote location on “top of the world” combined with the well developed infrastructure in Ny-Ålesund and the accessibility for scientists, is unique among monitoring stations world wide.

The observatory receives air masses from all continents on the northern hemisphere, making the location ideal for obtaining information concerning global pollution and climate change. As a result, the Zeppelin Observatory has become a major contributor of data on a global as well as a regional scale. Its long time-series of monitoring data are unique and of utmost importance for the study of climate change.

NILU's activities at the observatory are mainly based on the monitoring of long range transported air pollution. This includes greenhouse gases, persistent organic pollutants (POPs), particles, heavy metals, ozone, sulphur and nitrogen compounds.

The Zeppelin Observatory contributes to numerous international monitoring networks and is also an important contributor to several EU-projects. Scientists from all over the world frequently come to work at the Observatory with funding from the EU Research Infrastructure Programme.

The Zeppelin Observatory is a natural laboratory for regional, national and global research of the atmosphere and climate monitoring. Due to its location, the Observatory is an invaluable part of the earth's early warning systems.

Further information:

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MONITORING NORWAY

NILU is responsible for the Norwegian monitoring network of atmospheric deposition on behalf of the Norwegian Pollution Control Agency (SFT).

The network supports the national monitoring programmes, “Monitoring of long-range transboundary air pollution” and “Monitoring programme for forest damage” (OPS).

A subset of these is reported to the European Monitoring and Evaluation Programme (EMEP). Two of the sites, Birkenes and Zeppelin are advanced observatories with comprehensive measurements on atmospheric composition and properties.

ATMOSPHERIC TRANSPORT MODELLING AT NILU

NILU is operating a number of air pollution measurement stations and, through its involvement in EMEP, is hosting measurement data from background monitoring stations across Europe. Furthermore, NILU is involved in many EU and other projects, through which the institute also have access to measurement data from aircraft, ships, or satellites.

Long-range transport in the atmosphere from sources in different parts of Europe or even from upwind continents is an important factor determining the concentrations of the measured air pollutants. While a combination of different measured chemical species (e.g., ratios between short- and long-lived species) often allows identifying periods with a non-local influence on the measurement data, the identification of particular source regions requires a transport model.

NILU provides operational back trajectory calculations from a large number of sites on a daily basis (see www.nilu.no/trajectories). However, our more research-oriented activities aim at replacing trajectory calculations with a more comprehensive model framework utilizing the Lagrangian particle dispersion model FLEXPART (see zardoz.nilu.no/~andreas/flextra+flexpart.html).

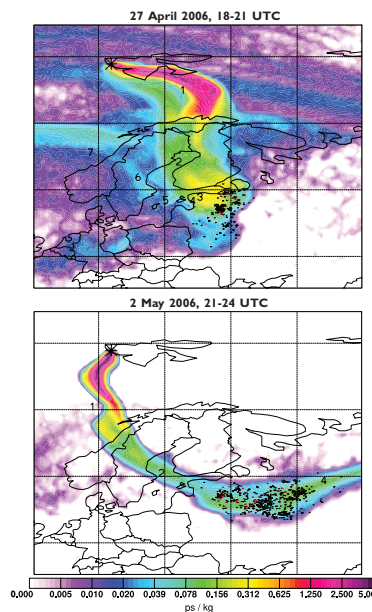
In contrast to simple trajectory models, such an approach accounts for turbulence and convection and also allows treating linear removal processes such as dry or wet deposition. It delivers quantitative source-receptor relationships and allows direct comparison of modelled quantities (tracer concentrations) with measured concentrations of long-lived chemical species (e.g., carbon monoxide). As a specialty, we concentrate our efforts on a receptor-oriented model frame-

work, by which the model is run backward in time from measurement stations and yields the geographical distribution of the sensitivity to emission input and, if combined with an emission inventory, the distribution of sources contributing to the modelled tracer concentration.

An example is shown in Figure 1, which established that a record-breaking air pollution episode at the Zeppelin station in spring 2006 was caused by the long-range transport of biomass burning emissions to the station. During the episode, the concentrations of ozone, carbon monoxide and aerosol mass, as well as aerosol optical depth, were the highest ones ever measured.

NILU also provide operational forecasts of air pollution transport during major campaigns, which are being used for instance to guide research aircraft into air pollution plumes. This, and the subsequent analysis of the measurement data thus obtained will be a major focus of the International Polar Year project POLARCAT (www.polarcat.no), which involves many institutions worldwide and is coordinated by NILU.

Furthermore, NILU also develops a FLEXPART model version that will allow simulating the transport of certain persistent organic pollutants (POPs), and we are applying the model also to determine the origin of water



Emission sensitivity in the lowest model layer from FLEXPART 20-day backward simulations for two periods in spring 2006 when measurements at the Zeppelin station showed the highest air pollutant concentrations ever measured at the station. The sensitivity is high along a pathway extending back into Eastern Europe, where a large number of agricultural fires were burning (locations marked with black dots).

vapour falling as precipitation over Norway.

These research activities, funded mostly through various grants from the Norwegian Research Council, will help maintaining the scientific leadership that NILU currently have in the field of atmospheric transport modelling.

Further information:

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Senior Scientist

OBSERVATIONS AS A BASIS FOR POLICY DECISIONS

Many issues in relation to the atmospheric pollution have had their discovery from observations of phenomena of which previously little was known.

A classical example is illustrated by the history of so called Acid Rain in Scandinavia. Already in the early 20th century indications of declining stocks of Atlantic salmon was registered, but no one could guess that this could be caused by emissions thousands of kilometres away. In the late 1940ies, the first observation networks for measuring the chemical composition of rain was established. Its focus however was to investigate the input of nutrients to agricultural areas. It was only in the late 1960ies that the association between the gradually increasing acidity of the rain samples was connected to the fish death. This resulted in a large international interest and the first international framework to deal with trans-boundary fluxes of air pollutants. NILU had the role of coordinating the European national monitoring efforts, and has since the 1970ies been a major contributor to the operational work of the Convention on Long-Range Transboundary Air Pollution, and its EMEP programme.

Similarly, the arctic area was for long considered to be a pristine and unpolluted area, and the discovery of haze layers by weather reconnaissance flights in the 1950ies resulted with time in an extensive research effort on Arctic Air pollution and its pathways of transport. Today we know that the Arctic ecosystems are among the most sensitive to anthropogenic changes to the

environment including deposition of mercury, persistent organic pollutants and of climate change. There are however still large uncertainties and gaps in our knowledge, but a large international effort through the IPY-project POLARCAT is expected to improve our understanding significantly.

The understanding of how emissions affect receptors is depending on good observations. They form an independent basis for which theoretical models can be developed, tested and validated. Observations are also fundamental for compliance purposes as they allow to investigate if agreed emission reduction targets result in the anticipated changes in atmospheric composition.

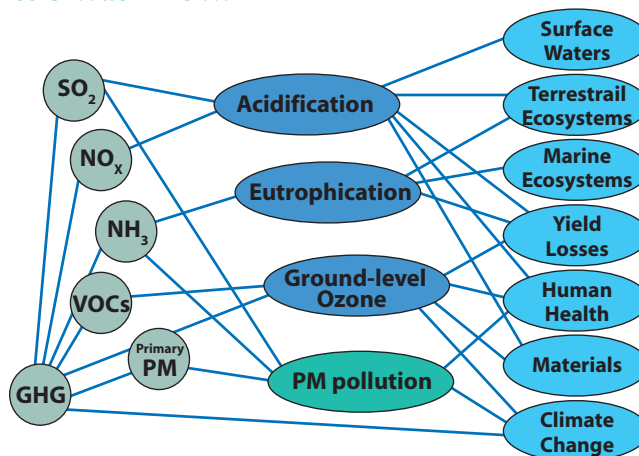
An important area of research at NILU includes the understanding of trends in tropospheric ozone. It has significant negative effects on human health; on vegetation and material; and it contribute to global warming. Despite significant reductions in the European precursors being nitrogen oxides

and volatile organic compounds, a gradual increase in background values is still evident. This points to a gradually increase in the global background levels, influenced by emissions outside the European continent and warmer climate.

NILU plays a key role in relation to harmonisation of long-term observations in number of thematic areas. This includes recommendation of measurement methodologies, quality assurance and assessment of trends. The central objective of these activities is to ensure that measurements are inter-comparable across national boundaries and measurement frameworks, and that the associated uncertainties are documented. The observation can then in combination with model estimates provide the scientific basis, credibility and transparency required to develop abatement strategies.

Further information:

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Director, Dept. Atmospheric
and Climate Research



AIR QUALITY INFORMATION

Many large cities in Europe and the world suffer from local air pollution that sometimes represent a health hazard. With growing environmental awareness amongst authorities and people, the demand for information is increasing. High quality and instant information about air quality can help produce better life quality and improve communication and mutual understanding between citizens and city authorities. NILU has developed a solution that provides all parties with instant information about air quality in whichever region chosen.

AirQUIS Information is the name of the system, and it is already in use in a number of cities in Europe, Africa and Asia. AirQUIS Information ensures correct and user-friendly presentation of air quality data from monitoring and forecast data as well as historical data.

The Information channels are Internet, WAP, SMS, MMS and online public displays. The information channels have options for public solutions or closed views for experts.

In Oslo, Norway's capital, citizens can receive information about the air quality on the web, via mobile phone or e-mail. The service includes a daily forecast service and messages with information about the air quality status. The status is based on measurements from several locations in Oslo. The air quality status is given as an Air Quality Index, based on measurements of particles (PM_{10} and $PM_{2.5}$) and NO_2 . The user chooses the level of pollution for which she wishes to receive information on the air quality status and for which areas.

The user can either subscribe to daily messages by SMS and/or e-mail, or request information via SMS when needed. The e-mail messages include health information and recommendations.

AirQUIS Information also offers a national portal solution where several cities can have one common national network. The national portal displays a list of all the cities, the air quality index for each city and provides the public with a good overview of the air quality situation within their country at any time.

Information about the air quality for several Norwegian cities can be viewed on: www.luftkvalitet.info.



PUBLIC AIR QUALITY INFORMATION IN CYPRUS

In the beginning of 2007, the Minister of Labour and Social Insurance of the Republic of Cyprus, Antonis Vasiliou, opened a comprehensive system for air quality management in Cyprus. The system, AirQUIS Information, gives Cyprian authorities an advanced tool for the monitoring, assessment and management of air pollution in Cyprus.

Like most nations, Cyprus has challenges regarding air pollution. Threshold levels of ozone and particles are exceeded every year and on occasions sandstorms from Africa sweep the country. These situations represent a severe health hazard to people with respiratory problems.

The air quality system helps the Cyprian authorities (the Department of Labour Inspection (DLI)/ the Ministry of Labour and Social Insurance), to imply the most effective abatement measures in order to reduce the threat of air pollution and to improve the general air quality in Cyprus.

An important part of the system is the information channels consisting of large panels strategically situated in central places outdoors and indoors. This way the public has easy and instant access to information about air quality in Cyprus.

A network of nine advanced monitoring stations record data on an hourly basis. The data is automatically fed to the panels and the new national web site for air quality monitoring in Cyprus: www.airquality.gov.cy.

The solution has been tailor made for Greek authorities by the Norwegian Institute for Air Research (NILU) in cooperation with Medisell Co Ltd (Cyprus).



Further information:

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Senior Scientist

NILU IN UNITED ARAB EMIRATES

The demand for services and expertise within air quality management in the United Arab Emirates (UAE) is increasing and the Norwegian Institute for Air Research (NILU) is expanding its engagement in the region.

NILU has opened a Regional Branch Office in the city of Abu Dhabi. Covering the United Arab Emirates (UAE) and neighbouring countries, the Regional Branch Office will offer the Middle-East market a complete range of services, ranging from consultancy to field operations.

In co-operation with local authorities and industry, NILU is undertaking several projects related to the monitoring and management of air quality. Key clients are the Environmental Agency of Abu Dhabi (EAD), Abu Dhabi National Oil Company (ADNOC) and Abu Dhabi Water and Electricity Authority (ADWEA).

Socio-economic development and urban growth in Abu Dhabi and other Emirates create potentially adverse consequences for the environment and the health of people. By using state of the art tools for management of air quality, NILU's clients are solving problems related to air pollution and at the same time identifying the most cost-effective measures to reduce the impact of air pollution.

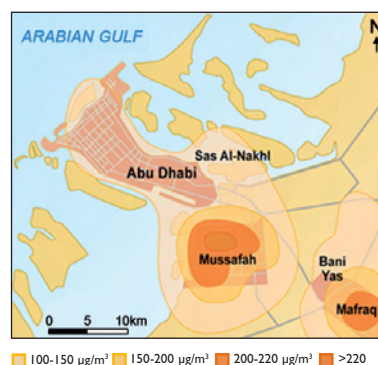
In UAE, NILU is working closely with UAE company: Dome Oilfield Engineering & Services (DOME). DOME is NILU UAE's sponsor and national service agent.

NILU projects in UAEs:

- NILU is assisting EAD in development of their organisation of the Air Quality Section after being appointed as an Environmental Agency and supervising EAD in all issues related to Air Quality management. In addition, NILU has designed EAD's ambient air quality management system including monitoring and modelling functionality.
- For ADWEA, NILU has installed and adapted the air quality modelling system AirQUIS for calculation of environmental impact from the power and desalination plants. Also for ADWEA, NILU is operating the ambient air quality network.
- In 2004 NILU delivered a major Front-End Engineering and Design project (FEED) for Abu Dhabi National Oil Company (ADNOC) with complete design of an Air Quality Monitoring and Management System for the ADNOC headquarter and it's group companies.
- In UAE, NILU offers two mobile state-of-the-art online monitoring stations. This enabling clients to investigate air quality where needed. The stations measure the complete range of pollutants in accordance with UAE and international air quality standards.



NILU Air Quality Monitoring station.



Maximum one-hour SO₂ concentration around the Abu Dhabi metropolitan area. Source: Environment Agency - Abu Dhabi.

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ESTABLISHMENT OF RURAL AMBIENT AIR MONITORING SITES (EMEP) IN KAZAKHSTAN, MOLDOVA, GEORGIA AND ARMENIA.

The Convention for Long-Range Transport of Air Pollution (CLRTAP) has 51 Parties covering most of Europe, Central Asia and North America.

However, large efforts need to be made to assist countries to ratify and implement the Convention and its protocols, hereunder EMEP. This is especially true for countries in the EECCA region (Eastern Europe, the Caucasus and Central Asia) where there hardly are any rural monitoring sites today.

This region is very important because of its huge size and high emissions of air pollutant. More monitoring is needed to better quantify the air quality in the region and to better understand the hemispheric transport in Asia and Europe.

With support from the Norwegian Ministry of Foreign Affairs and UNECE (CAPACT project Kazakhstan), NILU is establishing EMEP sites in Kazakhstan, Moldova and Georgia. One representative site in each country has been selected. Recommended reference methods both in field and laboratory will be implemented. These projects are focused on establishing good monitoring routines to ensure high quality data. Hands on training in the field and laboratory, and routines to quality assure and report data to international bodies like EMEP and WMO/GAW are therefore essential elements.



Further information:

Project name: CAPACT
Project co-ordinator: UNECE
Project leader NILU: Wenche Aas
Funding: UNECE
Period: 2005-2007
Website: www.unece.org/ie/capact

Project name: Establishing ambient air monitoring stations in Moldova, Georgia and Armenia
Project co-ordinator: The Norwegian Ministry of the Environment
Project leader: Wenche Aas, NILU
Funding: The Norwegian Ministry of Foreign Affairs
Period: 2006-2008
Further information: waa@nilu.no

SATELLITE OBSERVATIONS - IMPORTANT TOOL FOR NILU

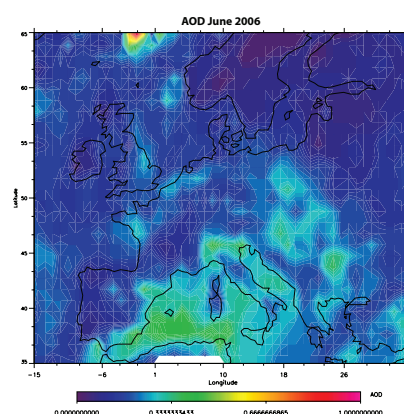
Through its role in the EMEP-CCC, NILU is involved in studying satellite data as an additional source of information for determining levels of surface air pollution.

With the ability to monitor oceans and remote land areas, satellite observations are used to observe long-range transport of aerosols and trace gases.

In 2006, NILU was awarded contracts with the European Space Agency and the Norwegian Space Centre. Currently we are

using data from European satellite sensors as part of our yearly reporting to EMEP and the United Nations Economic Commission for Europe.

Further information:
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Senior Scientist



Monthly mean AOD at 550 nm over Europe in June 2006 from the MODIS instrument onboard the Terra satellite. Data are courtesy of Langley Research Centre, NASA.

IMPROVED AIR QUALITY ASSESSMENT IN EUROPE

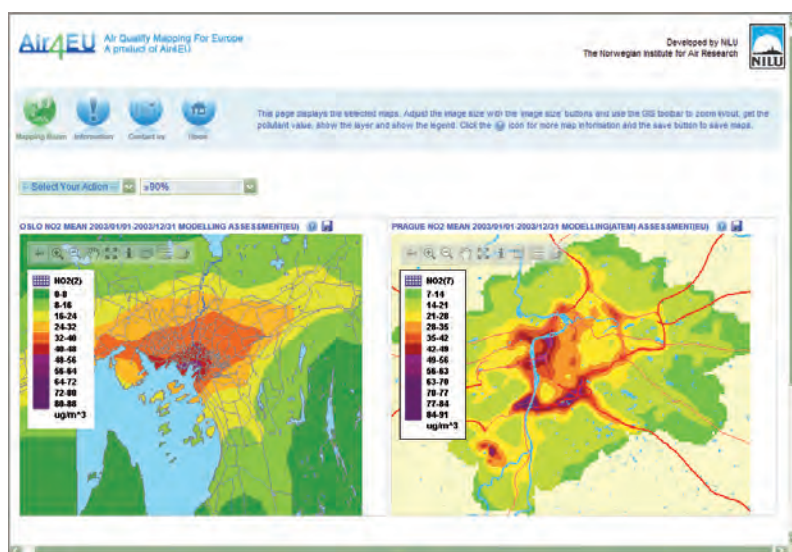
The implementation of existing and forthcoming air quality directives, in addition to increased emphasis on the effects of air pollution on human health and environment, has underlined the need for more reliable and cost-effective assessments of air quality in Europe. The Air4EU project, in which NILU played a central role, was aimed at providing the basis for such improved air quality assessment.

Compliance with existing air quality standards, especially for NO₂ and PM₁₀, is still a major challenge for many cities in Europe, but also new standards on other compounds such as PM_{2.5}, polycyclic aromatic hydrocarbons (PAH) and heavy metals may be problematic.

From a health perspective, air quality remains on the political agenda as epidemiological research indicates adverse health effects even at air quality levels below legislated standards.

In addition to the health effects, there are ecosystem and climatological effects coupled to air quality. The Air4EU project has contributed to this objective by carrying out research directed towards improving the spatial assessment of air quality contributing to improved mapping methods for air quality.

As part of the project, NILU developed an advanced web-based mapping tool for the harmonized presentation of observed and modelled air quality at different scales within Europe. The mapping tool enables researchers, city authorities, policy makers and other stakeholders to view air quality data on-line in their respective cities, and to compare the air pollution situation in their city with that of other cities or areas in Europe. In



addition to air quality maps, maps showing uncertainty related to the assessment are also provided. The mapping tool is accessible through www.air4eumaps.info.

To assess and test the recommendations a total of 14 case studies were conducted, in cooperation with local city users and authorities, as part of the project. NILU carried out three such case studies for Oslo, one case study in combination with the city authorities in Prague and one on the European scale, in cooperation with the European Topic Centre.

Further information:

AIR4EU

Air Quality Assessment for Europe: from local to continental scale.

Project period: 2004-2006.

Project co-ordinator: Prof. Peter Builtjes, TNO, the Netherlands.

NILU project leader: Senior Scientist Bruce Denby.

Project Research Partners: Netherlands Research Organisation, Apeldoorn, the Netherlands; Norwegian Institute for Air Research, Kjeller, Norway; Aristotle University of Thessaloniki, Thessaloniki, Greece; University of Stuttgart, Stuttgart, Germany; University of Hertfordshire, Hertfordshire, UK; Universidade de Aveiro, Aveiro, Portugal.

City Partners: AIRPARIF, Paris, France; ATAC, Rome, Italy; Environment Agency, London, UK; City Development Authority of Prague, Prague, Czech Republic; Envenco, Athens, Greece; Gemeentewerken Rotterdam, Rotterdam, Netherlands; Milieudinst Rijnmond, Schiedam, Netherlands; City of Oslo, Public Health Authority, Oslo, Norway.

Funding: The European Commission as part of the 6th FP – Policy oriented Research.

Project website: www.air4eu.nl

For more information: bde@nilu.no.

SUPPORT TO DEVELOPING COUNTRIES

NILU has over the years carried out a number of assignments to support developing countries on air quality management. Projects have been funded by NORAD, the World Bank as well as by different international organisations and Development Funds.

NILU has developed and applied tools to help solve the problems related to atmospheric pollution. In Asia and Africa, the emphasis is on impacts due to traffic emissions, energy use for domestic and industrial purposes, as well as industrial emissions and the impact of old technologies. The Air Quality Management Strategy (AQMS) system AirQUIS developed by NILU aims at identifying the most cost-effective measures to reduce the impact of air pollution. NILU has applied cost-effective abatement analyses in order to develop action plans and master plans for air pollution abatement.

A major element in the support to developing countries has also included institutional building and training. NILU participated during 2006 in international training programmes for the 14 least developed countries in Asia. NILU has during the last few years been working in countries such as China, Vietnam, Bangladesh, India, Indonesia, Nepal, Philippines, Botswana, Egypt, Zambia, Senegal, South Africa, Venezuela and Chile.

Examples of work presented in 2006 are:

Development of a Master Plan for Shanxi province in China

NILU cooperated with the Shanxi Environment Information Centre (SEIC) in order to develop master plans for the cities of Taiyuan, Datong and Yangquan. The cost benefit analysis clearly show that reducing pollution from centralized heating is the most effective alternative.

www.nilu.no/masterplan

Air Quality in Dhaka, Bangladesh was evaluated by NILU on behalf of the World Bank. NILU also planned a system for air quality management for Dhaka.

www.nilu.no/info/dhaka

Air Quality Management Capacity in Hanoi, Vietnam.

NILU evaluated the present situation, performed impact assessments and presented the roadmap for future AQM.

www.nilu.no/info/hanoi



NILU is also working on defining support to different urban areas and regions in Asia for the Clean Air Initiative Asia, based on Norwegian funds. NILU will continue supporting developing countries based on funds from the international banks and developing agencies concerning evaluation, assessment, training/institutional building and the establishment of monitoring and management systems aimed at improving and controlling air pollution.

Further information:

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Senior Scientist



ENVIRONMENTAL CHEMISTRY

Today, our modern society is based on chemicals and there are more than 100 000 chemicals on the market in Europe. For more than 99 % of these, information on properties is limited or non-existent.

In December 2006, The European Union adopted a new chemicals policy called REACH (Registration, Evaluation and Authorisation of Chemicals), aimed at establishing necessary information for the most important chemicals. An evaluation of the environmental properties is an important part of this policy. However, there will also be a large and increasing demand for determination of actual concentration levels in the environment for a large number of chemicals and it will be necessary to carry out many studies on specific environmental effects.

The Environmental Chemistry Department at NILU (MILK) has, for the last six years, focused strongly on determinations of environmental concentration

levels of emerging chemicals. This is a very demanding task since the physical, chemical and environmental properties of chemicals are very different; some are, for instance, soluble in fat, some in water, while some are virtually non-soluble in both water and fat. It is therefore, in many cases, necessary to establish new chemical analytical methods when work is started on an emerging chemical (or group of emerging chemicals).

Such work thus requires well-suited laboratories and a variety of highly advanced analytical instruments. MILK has extensive experience and competence in the field of sample preparation and use this for tailoring specialized preparation methods. The department currently operates several high-resolution instruments based on combinations of various techniques (gas chromatography (GC), liquid chromatog-

raphy (LC) and inductively coupled plasma (ICP)) with mass spectrometry (MS). Highly experienced personnel run the instruments in order to achieve demanded quality and lowest possible determination levels.

Examples of emerging chemicals that so far have been studied by MILK are: Sucralose, hormones, antibiotics, pain-killers, heart medicines, fragrances (musk), PFAS (perfluorinated alkyl-substances) and siloxanes.

Further information:

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Director, Environmental Chemistry Department



FINDING THE SOURCES OF ORGANIC MATTER

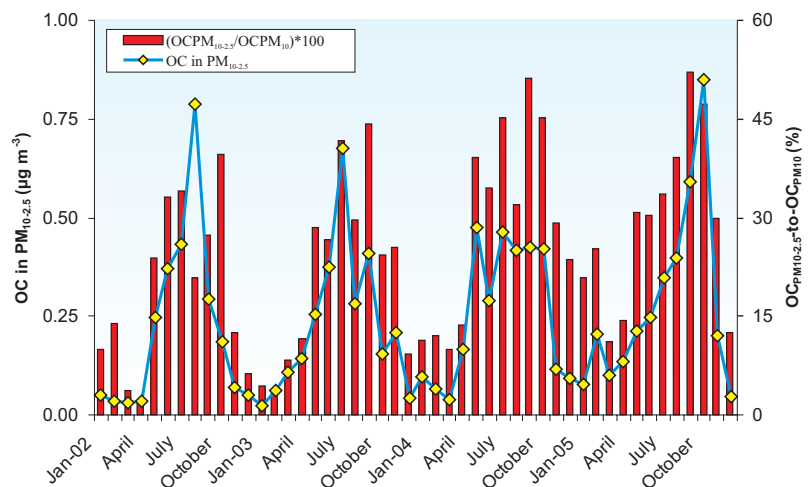
Particulate matter (PM) is currently the most severe air contaminant in Europe causing approximately 300.000 premature deaths annually. PM also affect the Earth's temperature through scattering of solar radiation and absorption of solar and terrestrial radiation. In addition, aerosols influence the radiative balance indirectly by affecting the optical properties, frequencies and lifetimes of clouds.

Of particular importance with respect to these topics is the organic matter (OM), which frequently dominates the mass of PM. Despite this, we know very little about the origin, fate and chemical character of OM.

In the project SORGA (Secondary Organic Aerosols in Urban Areas), we will quantify the non-anthropogenic sources of OM in urban areas. This is particularly important in order to sort out the policy of controlling man-made emissions.

We attempt to reach this goal through advanced chemical and dispersion modeling and with state-of-the-art chemical analysis involving ^{14}C -analysis and source specific organic tracers.

We will have focus on Biogenic Secondary Organic Aerosols (BSOA), formed by oxidation of volatile organic compounds (VOCs) emitted from vegetation, as these aerosols are particularly abundant.



Monthly mean concentration of OC in $\text{PM}_{10-2.5}$ at the Norwegian rural background site Birkenes for the period 2002 – 2006 (Left axis). The characteristic seasonal variation is mainly attributed to primary biological aerosols particles. During summer the relative contribution of $\text{OC}_{\text{PM}_{10-2.5}}$ to $\text{OC}_{\text{PM}_{10}}$ may account for more than 50 % (Right axis).

The project also aims to improve the current understanding of how BSOA are formed based on smog chamber experiments.

Further information:

Project's name: SORGA Secondary Organic Aerosols in Urban Areas
Project co-ordinator: NILU
Project leader: NILU: Tove M. Svendby
Funding: The Norwegian Research Council
Period: 2006 – 2007
Partners: met.no
Website: www.nilu.no/sorga

NILU – PROVIDING TOOLS FOR THE OIL INDUSTRY

In collaboration with oil companies at home and abroad, NILU provides tools to monitor, calculate and predict emissions and their potential impact on environment. Currently NILU are working with oil companies in Norway, United Arab Emirates and Saudi Arabia.

NILU has developed a system called Environmental Impact Factors (EIF-air). EIF-air quantifies the impact of air emissions on the environment. The system has proven to give good results for distinguishing the impact for different emission control actions, not only for one single plant but also where the emission control is optimised for different locations. In this way the results may be used to evaluate alternative locations in the planning phase.

Automatic input to the databases and information available for presentation online via a web interface makes EIF-air a user-friendly system.

EIF-air has been developed in collaboration with Statoil, Norwegian Institute for Water Research (NIVA) and Norwegian Institute for Nature Research (NINA) for evaluation of impact of emissions in the offshore industry.



Taking care of environment - NILU provides oil industry with useful tools. Above Snøhvit in Finnmark (Pictures Statoil ASA)

The model permits evaluation of different effects like:

- Deposition of nitrogen
- Acidification of surface water
- Impacts of nitrogen deposition on vegetation
- Production/destruction of ozone as a result of NO_x and VOC emissions

The main building blocks of the system are:

- Dispersion model calculating the deposition of nitrogen and sulphur
- Establishing the extra impact on acidification from the emission at hand
- Calculating environmental impacts for different scenarios

Further information:

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Director, Monitoring and Information
Technology

ENVIRONMENTAL EDUCATION

There is a growing awareness about the importance of environmental education. NILU has been involved in numerous environmental education projects since 1999.

Environmental Education Network

The network (www.miljolare.no) is a Norwegian educational tool and support system for sustainable development operated by the Directorate for Primary and Secondary Education. Its aims are to:

- Enhance learning by hands-on activities doing real work
- Enhance learning through collaboration with other schools and local authorities
- Make schools contribute to real science
- Help recruitment to higher education in natural science
- Have all educational material available in an advanced Internet solution

The network consists of 150 activities in 12 themes. NILU is responsible for the themes "Climate and air quality" and "Health, indoor climate and school environment".

(An international version of www.miljolare.no is being developed at www.sustain.no)

Annual research campaign for school children 2006 – Investigation of precipitation

The last four years a research campaign for Norwegian lower graduate students has been conducted during The National Science Week. The Directorate for Primary and Secondary Education, the Research Council of Norway and NILU are responsible for the campaign. The aim of

the 2006 campaign was to investigate the weather by measuring the precipitation with a precipitation gauge and also evaluate the weather forecasting in Norway. The campaign was in cooperation with The Norwegian Broadcasting Corporation (NRK) among others and included in their "Extreme Weather Week".

Young scientists 2006

Ungforsk is an annual event targeting lower graduate school children (age 13 - 18) and their teachers and parents in Oslo and Akershus Council, where research and educational institutions present themselves. The aim is to promote recruitment of young people to an academic career, increase the children's interest in science subjects, technology and research.

Active learning for a better school environment

This is a Norwegian pilot project aiming to establish [miljolare.no](http://www.miljolare.no) as a tool to fulfil Section 9 A in the Norwegian Education Act in schools and local authorities in the Ringerike council. Section 9 A grants all pupils the right to a good physical and psycho-social environment and to participate in the systematic work to improve their own school environment.

ACCENT WP16 Training & Education

The aim of this work which is part of the EU-project ACCENT is to strengthen the general educational on the topics of atmospheric composition at both postgraduate and lower graduate



Two pupils checking the indoor temperature, and below four pupils measuring precipitation.



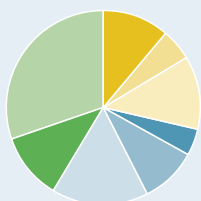
school levels in Europe and to facilitate the use of New Information Technologies in teaching Atmospheric Sciences. (Workshops, science cafes, course information, education portal, web based tools).

Further information:

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Senior Scientist

REPORT FROM THE BOARD OF DIRECTORS 2006

OPERATING REVENUE 2006



- 11% ● Basic grant
- 5% ● Development projects
- 12% ● The European Commission
- 4% ● United Nations
- 10% ● The Research Council of Norway
- 16% ● The Norwegian Pollution Control Authority
- 11% ● Industry
- 30% ● Public Administration

Total sum: 126 NOK million

The foundation Norwegian Institute for Air Research (NILU) conducts research and assessment of technical, economic, health related and other environmental issues related to air pollution and environmental toxins.

Domestic projects provide 67% of the income while the remaining 33% show an international orientation of the Institute.

NILU's main activities are run from Kjeller in the municipality of Skedsmo, Norway and there are permanent offices in Poland and in the United Arab Emirate, Abu Dhabi.

Major tasks in 2006

NILU has had a good increase of income in 2006 and almost all areas have improved. The basic funding from the Norwegian Research Council (NRC) is 11% of total earnings. From this are one-fourth strategic programmes, which are directed to future fields of research including cooperation with institutions of other disciplines:

- "New" organic environmental toxic compounds
- Development and use of data assimilation in atmospheric chemistry
- Metal speciation in studies of the status of nature
- Studies of local climatic effects caused by extreme weather phenomena
- Studies of the water cycle
- Nature and cultural heritage scenarios of future impact from eco systems
- Presence of pharmaceuticals and personal health care products in sewage and how to handle it

NILU has been successful in many applications sent NRC. This resulted in participation in several IPY projects (International Polar Year) of

which one is a very large consortium lead by NILU, the POLARCAT.

The main themes in the Tromsø office are within chemical analysis in biological material, earth observation, climate, ozone and UV. It is established close cooperation among the research institutions in the Polar Environmental Centre through the common centre programmes and there are close links to NILU's head office at Kjeller.

Development and use of the integrated environmental management system AirQUIS which tie together measurements, data handling, geographic information systems (GIS), calculations and presentation of air quality are main components in many projects in Norway and in other countries. NILU will continue to develop and apply AirQUIS. Norwegian Meteorological Institute (Met.no) and NILU work together with air quality forecasts for Oslo and other cities in Norway using AirQUIS.

The measurements at the Zeppelin observatory in Ny-Ålesund, Svalbard, are invaluable for science dealing with climate change and long-range transport of air pollutants caused by the fact that the measurements are not influenced by local emissions. However, it is a challenge to run these measurements, which in spite of good infrastructure and communications are more expensive than on the mainland. NILU has not been successful in improving the funding for this activity, which has been run at a loss in recent years. The Zeppelin observatory is by far the most important place for monitoring green house gases and long range transport of air pollutants in Norway and one of a few globally.

A new well-equipped observatory is under construction at the Norwegian station, Troll, in the Antarctica, which is to be manned the whole year. The instruments were sent

from Norway in October for mounting and start up in January 2007.

The important monitoring of long-range transport of air pollutants and green house gases is executed on behalf of SFT, The Norwegian Pollution Control Authority. SFT has also contracted NILU to act as reference laboratory for air quality measurements. NILU has for many years been accredited to do air quality and meteorological measurements and relevant chemical analysis. The chemical laboratory of NILU is among the leading laboratories in Europe regarding analysis of super low concentrations in air and in most other substances.

NILU performs various large contracts lasting one or up to several years for Norwegian enterprises.

NILU has been awarded a few grants for innovation projects from The Norwegian Research Council (NRC) in co-operation with the innovation company Campus Kjeller AS.

The contract research has been certified according to ISO 9001:2000 just before the end of the year.

International activities

NILU plays a significant role in many European initiatives regarding air quality of which one is participation in the topic centre for air quality and climate change (ETC-ACC) under EEA (European Environment Agency) and also Met no is a member of the centre.

NILU has in almost 20 years participated in EU's Framework Programmes for RTD (FP). Only in 2006 has the institute a role in 30 projects, which is part of FP6. The main themes are Ozone depletion, changes in UV, air pollution and climate change, satellite data validation, changes in atmospheric

chemistry, particulate matter in air, regional and global dispersion of environmental toxins, standardization of measurement methods, collection and dispersion of environmental data and environmental impact on cultural heritage.

In the FP6 NILU is a central partner in a Network of Excellence within air pollution started 1. March 2004. This network is called ACCENT, "Atmospheric Composition Change: a European Network". In 2002, NILU was appointed as partner in a Nordic Centre of Excellence (NcoE) for excellent research in the fields of biosphere, aerosols, cloud and climate interactions. The main objective is to study the importance of aerosol particles on climate change and on human health.

NILU develops and manages several international databases, mainly with a scientific purpose. They can be divided into three groups: databases linked up to emission conventions, satellite data and measurements from EU projects.

Transfer of competence through development aid is of great importance including projects in South Africa, Senegal, China, India, Vietnam and Bangladesh. The main topics are to establish infrastructure, to map air quality and to prepare action plans in addition to transfer knowledge and competence.

NILU Polska has 7 employees and focuses primarily on renewable energy and AQMS (Air Quality Management Systems). A permanent office was set up in Abu Dhabi a year ago on the basis of contract work for local authorities and oil based private industry. The main topics are institutional building within AQMS, analysing air quality status in the region, measurements and various consultative services and transfer of competence.

The balance sheet on 31. Dec. 2006

The accounts for 2006 show profit of 0,9 MNOK for the concern as for the mother company NILU. The operating profit for the concern is 1,2 MNOK and in the mother company 1,1 MNOK as the operating profit is 0,1 MNOK in the daughter company, NILU Products AS (NP). Compared to the previous year the margin is again positive and the increase in margin is 7 MNOK in the mother company as for the concern. The result from financial items is slightly lower than in 2005.

The total turnover for the concern was 126,8 MNOK, (108,1) including 2,2 MNOK (2,4) in NP. The numbers in parenthesis are from previous year.

The 100% owned daughter company NP was founded in 1996 has as its main purpose to manage the mother company's strategic ownership in other companies and to create commercial activity based on systems and products developed by NILU. NILU Polska sp. zo.o was founded in 2001 by NP buying 90% of the stock. NP has also participated in establishing a company in 2006, EIFair AS, and own 40,2% of the shares.

Future operations

The economic status of NILU as reflected in the economic balance for 2006 makes a good basis for continued operations. The prospects for the future seem sound and are based on a satisfactory contract reserve at year-end in addition to the basic funding from the NRC and reasonable expectations for new contracts in 2007.

BOARD OF DIRECTORS 2006

Gender issue

NILU focuses on a balanced composition of employees of both sexes. This applies also to the Board of Directors. The directives, salary system and NILU regulations are gender neutral. There are 59 women and 85 men of a total staff of 144 employees. There is one woman out of 7 department directors. The Board of Directors consists of 4 women and 3 men.

Work environment

The institute procedures for the work environment linked to Health, Environment and Safety is according to "Rules on internal control – health and safety". An annual report is prepared to the Health and Safety Authority regarding measures and status. Accidents resulting in absence from work have not occurred during 2005. The total time of absence due to illness sank from 5,2% to 4,7% in 2005.

External environment

NILU emits insignificant amounts of pollution to the ambient environment. Ordinary waste is source sorted, while special waste is delivered to approved receivers.



NILU Board of Directors 2006 (from left): Mona Johnsrud, Signe N mdal, Erik Solhjell, Peringe Grennfeldt, Suzanne Lacasse, Trond Iversen, and Inga Fl isand.

Trond Iversen
Chairperson

Suzanne Lacasse

Signe N mdal

Peringe Grennfeldt

Erik Solhjell

Inga Fl isand

Mona Johnsrud

Gunnar Jordfald
Director

Kjeller, 16 April 2007 In the Board of Directors for
Norwegian Institute for Air Research

AUDITORS REPORT 2006

I have audited the financial statements of the Norwegian Institute for Air Research for the financial year 2006, showing a profit of NOK 875 200 both for the parent company and the group. I have also audited the information in the Board of Director's report concerning the financial statements, the concern assumption of continued operations, and the proposal for the allocation of the profit. The financial statements comprise the balance sheet, the statements of income and cash flows, the accompanying notes and the group accounts. These financial statements are the responsibility of the company's Board of Directors and Managing Director. My responsibility is to express an opinion on these financial statements and on the other information according to the requirements of the Norwegian Act on Auditing and Auditors.

I have conducted my audit in accordance with the Norwegian Act on Auditing and Auditors and good auditing practice. Good auditing practice requires that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall financial statement presentation. To the extent required by law and good auditing practice an audit also comprises a review of the management of the company's financial affairs and its accounting and internal control system.

I believe that my audit provides a reasonable basis for my opinion.

In my opinion

The financial statements are prepared in accordance with the law and regulations and present the financial position of the company and of the Group as of 31 December 2006, and the results of its operations and its cash flows for the year then ended, in accordance with good accounting practice.

The company's management has fulfilled its duty to produce a proper and clearly set out registration and documentation of accounting information in accordance with the law and good accounting practice.

The information in the Board of Director's report concerning the financial statements, the going concern assumption, and the proposal for the cover of loss are consistent with the financial statements and comply with the law and regulations.

To my knowledge, there are no circumstances regarding the management of the institute and its distributions, that are not in compliance with the law, the institute's purpose or its statutes.

Oslo, 16 April 2007



Helge Thorvik
State Authorised Public
Accountant (Norway)

Note: The translation into English has been prepared for information purposes only.

PROFIT AND LOSS ACCOUNT FOR NILU

(all amounts in NOK)					
		The Group		Parent Company	
OPERATING REVENUE	Note	2006	2005	2006	2005
Project income	1	110 225 748	93 754 536	110 225 748	93 754 536
Basic grant	2	14 097 000	12 123 000	14 097 000	12 123 000
Production income		2 237 867	2 039 089	0	0
Sundry income		241 627	172 311	241 627	172 311
Operating revenue		126 802 243	108 088 936	124 564 376	106 049 847
OPERATING EXPENSES					
Payroll and sosial costs	3	-78 177 669	-70 920 357	-77 448 109	-70 269 739
Direct project expenses	1	-18 617 805	-19 270 804	-18 617 805	-19 270 804
Changes to project in progress		-2 733 601	-1 701 891	-2 733 601	-1 701 891
Direct production costs/cost of materials		-873 669	-1 112 298	0	0
Rentm lightning, heating etc.		-4 009 381	-3 993 691	-4 009 381	-3 993 691
Consumables, operation and maintenance		-11 459 779	-8 600 056	-11 321 731	-8 473 658
Travels and meetings		-1 803 218	-849 287	-1 803 218	-849 287
General office expenses		-2 543 770	-2 409 990	-2 543 770	-2 409 990
Other expenses	4	-4 970	-850	-4 970	-400 850
Depreciation	5	-5 386 694	-5 028 259	-5 004 694	-4 631 459
Operating expenses		-125 610 556	-113 887 484	-123 487 279	-112 001 370
OPERATING PROFIT		1 191 686	-5 798 549	1 077 096	-5 951 524
FINANCIAL INCOME AND FINANCIAL EXPENSES					
Income from investments in subsidiary company				27 013	178 468
Income from investments in affiliated companies	8	-84 464	37 782		
Dividends received		539 049	451 242	533 924	449 744
Other financial income		139 736	309 786	119 215	309 786
Interest expenses	6	-574 223	-575 545	-574 079	-575 545
Other financial expenses		-307 969	-67 425	-307 969	-66 391
Net profit/loss financial items		-287 871	155 839	-201 896	296 061
ORDINARY PROFIT BEFORE TAX CHANGES		903 815	-5 642 710	875 200	-5 655 463
Tax expenses on ordinary profit	7	-28 615	-12 753	0	0
PROFIT/LOSS OF THE YEAR		875 200	-5 655 463	875 200	-5 655 463
APPROPRIATION AND DISTRIBUTION OF PROFIT/LOSS					
Allocated to other equity capital	12	875 200	-5 655 463	875 200	-5 655 463

BALANCE

(all amounts in NOK)		THE GROUP		PARENT COMPANY	
ASSETS	Note	31.12.2006	01.01.2006	31.12.2006	01.01.2006
FIXED ASSETS					
Immaterial assets					
Activated research and development costs		552 000	921 000		
Tangible fixed assets					
Building Kjeller	5	18 530 000	19 171 250	18 530 000	19 171 250
Building engineering	5	344 000		344 000	0
Instruments/field equipment	5	9 172 900	5 206 440	9 172 900	5 206 440
Computer equipment	5	881 100	620 100	881 100	620 100
Fixtures and fittings	5	258 250	358 100	258 250	358 100
Tangible fixed assets, NILU Products	5	45 500	58 500	0	0
Total tangible fixed assets		29 231 750	25 414 390	29 186 250	25 355 890
Financial fixed assets					
Net pension commitments		96 449	91 140		
Investments in subsidiary company	8	93 448	106 511	1 949 463	1 922 450
Loan to subsidiary company	9	0	0	1 690 000	1 690 000
Investments in affiliated companies	8	1 289 773	1 176 174	0	0
Investments in shares	8	12 049 543	1 694 251	12 049 543	1 694 251
Deposit/other holdings		78 844	75 844	78 844	75 844
Total financial fixed assets		13 608 057	3 143 920	15 767 850	5 382 545
Total fixed assets		43 391 807	29 479 310	44 954 100	30 738 435
CURRENT ASSETS					
Stocks, NILU Products	10	1 219 100	1 324 700	0	0
Work in progress	10	7 182 101	9 915 702	7 182 101	9 915 702
Debtors		14 046 167	12 406 303	13 699 583	12 016 647
Claims on the group		0	0	733 650	1 174 378
Other short-term claims		1 764 970	1 981 523	1 692 123	1 781 270
Cash and bank	11	26 519 713	40 718 841	26 032 806	39 832 712
Total current assets		50 732 051	66 347 068	49 340 263	64 720 707
TOTAL ASSETS		94 123 858	95 826 378	94 294 363	95 459 142
EQUITY AND LIABILITIES					
Lock-up capital					
Capital stock		10 000 000	10 000 000	10 000 000	10 000 000
Equity capital income					
Other equity capital	12	40 421 885	39 546 684	40 421 885	39 546 684
Total equity capital		50 421 885	49 546 684	50 421 885	49 546 684
LIABILITIES					
Provisions made for liabilities					
Pension commitments	13	4 591 898	4 044 158	4 591 898	4 044 158
Deferred tax		0	0	0	0
Other long-term debt					
Mortgage	14	6 412 500	7 267 500	6 412 500	7 267 500
Total long-term liabilities		11 004 398	11 311 658	11 004 398	11 311 658
Current liabilities					
Creditors		6 706 091	4 572 314	6 617 355	4 449 302
Debt to subsidiary company		0	0	541 128	85 956
Advances from clients		8 938 324	12 654 917	8 878 009	12 560 537
Advances relating to management projects	1	1 827 494	3 993 120	1 827 494	3 993 120
Tax payable		28 615	12 753		Unpaid
government charges and special taxes		6 561 990	5 517 529	6 450 748	5 352 530
Unpaid accumulated holiday payroll/wages		8 217 842	8 068 887	8 157 807	8 010 839
Other short-term liabilities		417 219	148 516	395 540	148 516
Total short-term liabilities		32 697 575	34 968 036	32 868 081	34 600 800
Total liability		43 701 973	46 279 694	43 872 479	45 912 458
TOTAL EQUITY AND LIABILITIES		94 123 858	95 826 378	94 294 363	95 459 142

CASH FLOW ANALYSIS

(all amounts in NOK)		THE GROUP		PARENT COMPANY	
		2006	2005	2006	2005
OPERATING ACTIVITIES					
Profit before taxes		903 815	-5 642 710	848 187	-5 833 931
Tax paid for the period		-12 753	0	0	0
Loss on discarded equipment		0	0	0	0
Corrections made for dead stocks		-21 462	-24 165	0	0
Ordinary depreciation		5 365 552	5 028 259	4 983 552	4 631 459
Income in conn. with writing the equity method for shares		84 464	-37 782	0	0
Changes in stocks		127 062	242 265	0	0
Changes in debtors		-1 209 288	-2 765 717	-1 252 360	-2 602 861
Changes in creditors		2 588 949	-496 707	2 623 225	-595 715
Changes in pension commitments		542 431	-347 982	547 740	-299 442
Changes in other accruals		-2 484 834	5 786 818	-1 526 046	5 627 015
Net cash flow from operating activities	A	5 883 936	1 742 280	6 224 298	926 526
INVESTMENT ACTIVITIES					
Purchase of shares in CIENS		-10 402 521		-10 402 521	0
Purchase of operating assets		0	-65 000		
Purchase of shares		-137 771	-47 229	47 229	-47 229
Income sale of tangible fixed assets		0	0	0	0
Investment on tangible fixed assets		-8 813 912	-1 847 050	-8 813 912	-1 847 050
Net cash flow from investment activities	B	-19 354 204	-1 959 279	-19 169 204	-1 894 279
FINANCING					
Long-term liabilities repaid		-855 000	-855 000	-855 000	-855 000
Cash inflow of loan from subsidiary company		0	0	0	0
Payments from subsidiary company		126 140	-197 350		
Net cash flow from financing activities	C	-728 860	-1 052 350	-855 000	-855 000
Net changes in cash and bank throughout the year	A+B+C	-14 199 128	-1 269 349	-13 799 906	-1 822 753
Cash and bank deposits as at 1 January		40 718 840	41 988 189	39 832 711	41 655 464
Cash and bank deposits as at 31 December		26 519 712	40 718 840	26 032 805	39 832 711

NOTES TO THE ACCOUNTS 2006

The consolidation accounts comprise the parent company NILU and the wholly owned subsidiary NILU Products AS. The shareholdings in the subsidiary and all internal transactions have been eliminated.

Trade debtors and other receivables are recorded at face value after deducting provisions for bad debts. Provisions for bad debts are made on the basis of an individual valuation of the various receivables. In addition, an unspecified provision for debtors is made in order to cover the assumed loss.

NOTE 1 PROJECT INCOME

In order to show the actual turnover, as in previous years, management projects have not been included in the profit and loss account. In 2006, management costs amounted to NOK 5.2 million and for 2005 NOK 9.5 million. Equivalent amounts are deducted from direct project costs. Advance payment for the management projects has been entered as a separate item in the balance for 2006 amounting to NOK 1 827 494 and for 2005 to NOK 3 993 120.

NOTE 2 BASIC GRANT/INSTITUTE PROGRAMME

		2006	2005	2004	2003
Basic grant	Chapter 1410	9 450 000	8 576 000	8 564 000	8 788 000
Institute programme	Chapter 1410	4 647 000	3 547 000	3 300 000	2 600 000
TOTAL		14 097 000	12 123 000	11 864 000	11 388 000

NOTE 3 EMPLOYEES, REMUNERATION ETC.

Labour costs	2006	2005	2006	2005	2006	2005
	The Group	The Group	Parent Company	Parent Company	NILU Products	NILU Products
Salaries	60 161 836	54 975 475	59 616 549	54 446 529	545 287	528 946
Salaries clearing NILU Products	-97 323	-26 925	-97 323	-26 925		
Expense for social taxes	8 637 510	8 350 537	8 549 868	8 265 468	87 642	85 069
Norwegian Public Service Pension Fund (SPK)	7 408 410	6 464 974	7 336 148	6 396 720	72 262	68 254
Assistance from the group	26 510	13 815			26 510	13 815
Change in pension commitments	542 431	-347 982	547 740	-299 442	-5 309	-48 540
Other labour costs	1 498 295	1 490 463	1 495 127	1 487 389	3 168	3 074
Total labour costs	78 177 669	70 920 357	77 448 109	70 269 739	729 560	650 618

The Institute Director received remuneration amounting to:	817 232
Remuneration paid to members of the Board of directors:	215 750
Average number of employees:	144
Auditor's fee (auditing only) NILU & NP:	82 200

NOTE 4 OPERATING GRANT

NILU Products have received NOK 0 in operating grant from parent company in 2006 and NOK 400 000 in 2005.

NOTE 5 TANGIBLE FIXED ASSETS

Effective from 2006 the depreciation rate was changed from 2 % to 1 % on NILU's buildings. This alteration of principle entails an increase in operating profit amounting to NOK 761 000.

Tangible fixed assets	New building NILU	Building engineering NILU	Instrum. NILU	Data equipm. NILU	Office equipm. NILU	TOTAL Parent Company	R&D costs NILU Products	Instru. NILU Products	TOTAL The Group
Original cost 01.01.06	73 167 064	0	58 564 609	13 185 312	5 219 250	150 136 235	1 843 388	325 661	152 305 284
Additions during the year	62 506	382 395	7 537 237	831 551	30 000	8 843 689	0	0	8 843 689
Disposal during the year				-11 513	-18 264	-29 777			-29 777
Original cost 31.12.06	73 229 570	382 395	66 101 846	14 005 350	5 230 986	158 950 147	1 843 388	325 661	161 119 196
Accu. depreciation 01.01.06	53 995 814	0	53 358 169	12 565 212	4 861 150	124 780 345	922 388	267 161	125 969 894
Ordi. depreciation for the year	703 756	38 395	3 570 777	561 916	129 850	5 004 694	369 000	13 000	5 386 694
Depreciation written back				-2 878	-18 264	-21 142			-21 142
Accu. depreciation 31.12.06	54 699 570	38 395	56 928 946	13 124 250	4 972 736	129 763 897	1 291 388	280 161	131 335 446
Book value 31.12.06	18 530 000	344 000	9 172 900	881 100	258 250	29 186 250	552 000	45 500	29 783 750
Depreciation rate, linear	1,0%	10,0%	20,0%	25,0%	12,5%		20,0%	20,0%	

NOTE 6 INTEREST EXPENSES

The interest expenses are mainly connected with interest on the mortgage.

NOTE 7 TAXES

NILU is exempt from tax liability for its main activities. The subsidiary is liable to pay taxes, and the various tax items can be seen in the table below.

Calculation of tax for the year:

Profit on ordinary activities before tax	55 628
Interest income from the tax settlement for the year 2005	144
Profit written back affiliated companies	84 464
Changes is the difference between the values for accounting purposes and those for tax purposes	-38 038
The years tax basis	102 198
Payable tax = 28% of 102.198	28 615

To be cautious, deferred tax profit is not calculated.

NOTE 8 SHARES

NILU Products AS is wholly owned with a share capital of NOK 750.000.

As of 31.12.2006 NILU is shareholder in the following companies:

Company	Share capital	Number of shares owned	Nominal value per share	Book value
Campus Kjeller AS	8 830 399	32 856	100	1 602 216
Miljøalliansen AS	150 000	30	1 000	30 000
Sundry stocks				14 806
Total				1 647 022

NILU Products AS, as of 31.12.2006, owns shares in the following companies:

Afflicted companies are:	Acquisition time	Business location	Stake in	Voting share
NILU Polska Ltd.	2001	Poland	90,0 %	90,0 %
Unilab Analyse AS	1998	Tromsø	49,0 %	49,0 %
EIFair AS	2006	Oslo	40,2 %	40,2 %

Shares and units in and claims on the CIENS-building is managed by BSA Capital AS:

Units in CIENS Eiendom KS	129	8 896 482
Shares in CIENS Eiendom AS	129	988 498
Claims on CIENS Eiendom KS		517 541
TOTAL	31.12.2006	10 402 521

From 1999, the companies are booked according to the equity method, see table below:

	NILU Polska Ltd.	Unilab Analyse AS	EIFair AS	TOTAL
Original cost	96 011	1 500 000	185 000	1 781 011
Equity at time of purchase as entered on balance sheet	96 011	1 048 078	185 000	1 329 089
Goodwill		451 922		451 922
Opening balance 1.1.2006	106 511	1 176 174		1 282 685
Proportion of profit/loss for the year	-17 232	-71 610	209	-88 633
Adjusted income balance	4 169			4 169
Total loss/profit for 2006	-13 063	-71 610	209	-84 464
Purchased in 2006			185 000	185 000
Closing statement on balance sheet as at 31.12.2006	93 448	1 104 564	185 209	1 383 221

NOTE 9 LOAN TO SUBSIDIARY

NILU Products AS has borrowed NOK 1 690 000 from the parent company in connection with purchase of shares.

NOTE 10 WORK IN PROGRESS AND STOCK

The value of work in progress is the project work carried out which as not yet been invoiced. As in previous years, the invoice value has been written down by 20% en bloc. In addition, write-downs have been assessed for each project relative to the risk of overrun involved. As a result, such provisions may vary somewhat from one year to the next, also in terms of percentage.

As of 31.12.2006 this provision of 45,5% is approx. 5% higher than previous year. This provision is deemed sufficient following an assessment of the invoice value for each individual assignment.

Work in progress parent company	31.12.2006	31.12.2005	31.12.2004	31.12.2003
Invoice value	13 177 626	16 594 627	19 621 991	15 983 328
Provision	-5 995 525	-6 678 925	-8 004 398	-7 871 866
Total work in progress	7 182 101	9 915 702	11 617 593	8 111 462
Provision in % of invoice value	45%	40%	41%	49%

The stock in the subsidiary is estimated at original cost.

NOTE 11 LOCKED-UP CAPITAL

NOK 3 330 998 of the bank deposit is locked-up as withholding tax funds, NOK 3 288 362 of which is in the parent company.

NOTE 12 OTHER EQUITY CAPITAL

	The Group	Parent Company
Other equity capital as at 1.1.2006	39 546 684	39 546 684
Profit of the year	875 200	875 200
Other equity capital as at 31.12.2006	40 421 884	40 421 884

NOTE 13 PENSION COMMITMENTS

The company's pension commitments are covered via the Norwegian Public Service Pension Funs (SPK), of which all employees are members.

In connection with the new accounting law being introduced, the company has calculated its net pension commitment according to the new Norwegian accounting standards. The actual calculation has been carried out by SPK and is based on an expected return of 5.5%, a discount interest of 5.5%, an annual salary growth of 3.5% and an annual "G" adjustment of 3.5%.

	The Group	Parent Company	NILU Products
The 2006 pension commitment taken to expenses is made up of:			
Net changes in the pension commitment	542 431	547 740	-5 309
Pension premium paid	6 349 581	6 289 896	59 685
Premium paid to AFP	1 058 829	1 046 252	12 577
Allocated future pension premium	0	0	0
Total	7 950 841	7 883 888	66 953

NOTE 14 ASSETS HELD AS SECURITY – LOAN PAYMENT

Of the company's total liabilities NOK 6 412 500 is a mortgage with the building as security. As per 31.12.2006 this building had a book value of NOK 18 530 000. For the remaining loan half-yearly payments will be made up to 30.06.2014.

REPORTS, SCIENTIFIC PAPERS AND LECTURES

SCIENTIFIC PAPERS

Andersen, I.S., Haugstad, K., Fønnum, F. and Mariussen, E.

The effects of different combinations of brominated flame retardants, polychlorinated biphenyls and methylmercury on neurotransmitter uptake in synaptosomes and synaptic vesicles in vitro. *Organohal. Comp.*, 68, 1182-1185 (2006).

Andersson, J., E., Dye, C.

and Schlabach, M. et al. Results from the Swedish National Screening Programme 2005. Subreport I: Antibiotics, anti-inflammatory substances and hormones. Stockholm, IVL Swedish Environmental Research Institute. (IVL Report B1689)

Andersson, P.L., Stenberg, M., Mariussen, E. and Fønnum, F.

Structure-activity relationships of PCBs potency as neurotoxicants. *Organohal. Comp.*, 68, 117-120 (2006).

Aspmo, K., Temme, C., Berg, T., Ferrari, C., Gauthier, P.-A., Fain, X. and Wibetoe, G.

Mercury in the atmosphere, snow and melt ponds in the North Atlantic Ocean during Arctic summer. *Environ. Sci. Technol.*, 40, 4083-4089 (2006).

Baklanov, A., Hänninen, O., Slørdal, L.H. et al.

Integrated systems for forecasting urban meteorology, air pollution and population exposure. *Atmos. Chem. Phys. Discuss.*, 6, 1867-1913 (2006).

Barrett, K.J.

From land to sea via the sky: what we know of airborne contamination of European semi-enclosed seas. *Geocomarina*, no. 11, 5-19 (2005).

Beirle, S., Spichtinger, N., Stohl, A. et al.

Estimating the NO_x produced by lightning from the GOME and NLDN data: a case study in the Gulf of Mexico. *Atmos. Chem. Phys.*, 6, 1075-1089 (2006).

Berg, T., Fjeld, E. and Steinnes, E.

Atmospheric mercury in Norway: contributions from different sources. *Sci. Total Environ.*, 368, 3-9 (2006).

Berger, U. and Herzke, D.

Per- and polyfluorinated alkyl substances (PFAS) extracted from textile samples. *Organohal. Comp.*, 68, 2023-2026.

Berger, U. og Thomsen, C.

Per- og polyfluorerte alkylstoffer (PFAS). *Kjemi*, 66, nr. 4, 22-23 (2006).

Blum, U., Khosrawi, F., Baumgarten, G., Stebel, K., Müller, R. and Fricke, K.H.

Simultaneous lidar observations of a polar stratospheric cloud on the east and west sides of the Scandinavian mountains and microphysical box model simulations. *Ann. Geophys.*, 24, 3267-3277 (2006).

Bogen, I.L., Boulland, J.L., Mariussen, E. et al.

Absence of synapsin I and II is accompanied by decreases in vesicular transport of specific neurotransmitters. *J. Neurochem.*, 96, 1458-1466 (2006).

Bouwman, H., Sereda, S., Meinhardt, H.R. and Kylin, H.

DDT and pyrethroid residues in human breast milk from Kwazulu-Natal, South Africa. *Organohal. Comp.*, 68, 1623-1626 (2006).

Brevik, K. and Schlabach, M.

On the sources of PCBs and PBDEs to Lake Mjøsa, Norway. *Organohal. Comp.*, 68, 77-80 (2006).

Brevik, K., Vestreng, V., Rozovskaya, R. and Pacyna, J.M.

Atmospheric emissions of some POPs in Europe: a discussion of existing inventories and data needs. *Environ. Sci. Policy*, 9, 663-674 (2006).

Brevik, K., Wania, F., Muir, D.C.G., Alaae, M., Backus, S. and Pacepavicius, G.

Empirical and modelling evidence of the long-range atmospheric transport of decabromodiphenyl ether.

Environ. Sci. Technol., 40, 4612-4618 (2006).

Brinksmä, E.J., Hansen, G., Stebel, K. et al.

Geophysical validation of SCIAMACHY limb ozone profiles. *Atmos. Chem. Phys.*, 5, 197-209 (2006).

Brown, S.S., Neuman, J.A., Stohl, A. et al.

Nocturnal odd-oxygen budget and its implications for ozone loss in the lower troposphere. *Geophys. Res. Lett.*, 33, L08801, doi:10.1029/2006GL025900 (2006).

Brändli, R.C., Berger, U., Huber, S. et al.

Organic pollutants in source-separated compost. *Organohal. Comp.*, 68, 863-866 (2006).

Colomb, A., Williams, J., Forster, C. et al.

Airborne measurements of trace organic species in the upper troposphere over Europe: the impact of deep convection. *Environ. Chem.*, 3, 244-259 (2006).

Cooper, O.R., Stohl, A., Trainer, M. et al.

Large upper tropospheric ozone enhancements above midlatitude North America during summer: In situ evidence from the IONS and MOZIC ozone measurement network. *J. Geophys. Res.*, 111, D24S05, doi:10.1029/2006JD007306 (2006).

Cristofanelli, P., Bonasoni, P., Stohl, A. et al.

A 6-year analysis of stratospheric intrusions and their influence on ozone at Mt. Cimone (2165 m above sea level). *J. Geophys. Res.*, 111, D03306, doi:10.1029/2005JD006553 (2006).

Damoah, R., Forster, C., Stohl, A. et al.

A case study of pyro-convection using transport model and remote sensing data. *Atmos. Chem. Phys.*, 6, 173-185 (2006).

de Gouw, J.A., Warneke, C., Stohl, A. et al.

Volatile organic compounds composition of merged and aged forest fire plumes from Alaska and western Canada. *J. Geophys. Res.*, 111,

D10303, doi:10.1029/2005JD006175 (2006).

de Voogt, P., Berger, U., Heimstad, E. et al.

Perfluorinated organic compounds in the European environment. Scientific report of the EU project PERFORCE (FP6-NEST-508967).

Dumas, P., Sandanger, T.M., Sandau, C.D., Sjödin, A. and Ayotte, P.

Semi-automated method for the determination of 150 persistent organic pollutants in human serum using gas chromatography mass spectrometry (GC-MS) with simultaneous DR-CALUX assay. *Organohal. Comp.*, 68, 1593-1596 (2006).

Evensen, A., Christensen, G.N. and Berger, U.

Organochlorines, polybrominated diphenyl ethers and perfluorinated compounds in marine sediments from Isfjorden, Svalbard. *Organohal. Comp.*, 68, 1458-1461 (2006).

Ferm, M., Makkonen, U., Hanssen, J.E. and Ellermann, T.

Final report from NMR project 'Test of a filter pack combined with a PM₁₀ inlet'. Project number 04FOX5. Stockholm, IVL Swedish Environmental Research Institute. (IVL Report B1686)

Fischer, E., Pszenny, A., Keene, W., Maben, J., Smith, A., Stohl, A. and Talbot, R.

Nitric acid phase partitioning and cycling in the New England coastal atmosphere. *J. Geophys. Res.*, 111, D23S09, doi:10.1029/2006JD007328 (2006).

Fjeld, E., Rognerud, S., Enge, E.K., Borgen, A.R. og Dye, C.

Miljøgifter i sedimenter fra Mjøsa, 2005-2006. Oslo, NIVA (Statlig program for forurensningsovervåking. Rapport 972/2006). (TA-2210/2006).

Floisand, I., McInnes, H., Broday, D., Lützenkirchen, S., Holländer, W. and Bartonova, A.

Exposure of children to particulate matter in urban areas - model calculations. In: COST Action 633.

Particulate matter: properties related to health effects. Proceedings of the international conference April 3 to 5, 2006, Austrian Academy of Sciences, Vienna, Austria. Eds.: Kuhlbusch, T. and Cassee, F. p. 106 (2006).

Fønnum, F., Mariussen, E. and Reistad, T.

Molecular mechanisms involved in the toxic effects of polychlorinated biphenyls (PCBs) and brominated flame retardants (BFRs). *J. Toxicol. Environ. Health, Part A*, 69, 21-35 (2006).

Forsius, M., Derome, J., Hole, L.R. et al.

Conclusions and recommendations. AMAP Assessment 2006: Acidifying Pollutants, Arctic Haze, and Acidification in the Arctic, Arctic Monitoring and Assessment Programme. Oslo, Arctic Monitoring and Assessment Programme, 2006. pp. 94-98.

Frioud, M., Gausa, M., Stebel, K., Hansen, G., Myhre, C. et al.

Observation and characterization of aerosols above ALOMAR (69°N) by tropospheric Lidar, sun-photometer and VHF Radar. Proceedings of Lidar Technologies, Techniques, and Measurements for Atmospheric Remote Sensing II, Stockholm, Sweden, 11-16 September 2006. Ed. by Upendra N. Singh. Proc. SPIE, Vol. 6367, 636703.

Garrett, T.J., Avey, L., Palmer, P.I., Stohl, A. et al.

Quantifying wet scavenging processes in aircraft observations of nitric acid and cloud condensation nuclei. *J. Geophys. Res.*, 111, D23S51, doi:10.1029/2006JD007416 (2006).

Hansen, G. and Kyrö, E.

The NorSEN network: The use of ENVISAT derived and ground-based aerosol information. In: Abstract book. Atmospheric science conference, ESA-ESRIN, Frascati, Italy, 8-12 May 2006.

- Hansen, G., Edvardsen, K. and Høiskar, B.A. Development of the ozone layer and UV radiation at Svalbard – an assessment for MOSJ. Miljøovervåking Svalbard og Jan Mayen (MOSJ). Miljøstatusrapporter.
- Hansen, G.H. Fjernkontroll av ozonnedbrytningen i Arktis? Cicerone, vol. 15, nr. 5, 38-39 (2006).
- Heimstad, E.S., Dahl-Hansen, G., Enge, E.K. and Schlabach, M. Levels of dioxins in soil and freshwater fish from northern Norway. *Organohal. Comp.*, 68, 1466-1469 (2006).
- Hendrick, F., Van Roozendaal, M., Kylling, A. et al. Intercomparison exercise between different radiative transfer models used for the interpretation of ground-based zenith-sky and multi-axis DOAS observations. *Atmos. Chem. Phys.*, 6, 93-108 (2006).
- Herbert, B.M.J., Halsall, C.J., Jones, K.C. and Kallenborn, R. Field investigation into the diffusion of semi-volatile organic compounds into fresh and aged snow. *Atmos. Environ.*, 40, 1385-1393 (2006).
- Herzke, D., Berger, U., Huber, S. and Nygård, T. Perfluorinated organic compounds compared to brominated and chlorinated organic pollutants in European shag (*Phalacrocorax aristotelis*) and common eider (*Somateria mollissima*) from Norway. *Organohal. Comp.*, 68, 667-670 (2006).
- Hiebl, J., Melcher, J., Gundersen, H., Schlabach, M. and Vetter, W. Identification and quantification of polybrominated hexahydroxanthene derivatives and other halogenated natural products in commercial fish and other marine samples. *J. Agric. Food Chem.*, 54, 2652-2657 (2006).
- Hole, L., Christensen, J., Forsius, M., Nyman, M., Stohl, A. and Wilson, S. Sources of acidifying pollutants and Arctic haze precursors. AMAP Assessment 2006: Acidifying Pollutants, Arctic Haze, and Acidification in the Arctic, Arctic Monitoring and Assessment Programme. Oslo, Arctic Monitoring and Assessment Programme, 2006. pp. 2-10.
- Hole, L.R., Christensen, J., Ginzburg, V.A., et al. Concentrations and deposition of acidifying pollutants. AMAP Assessment 2006: Acidifying Pollutants, Arctic Haze, and Acidification in the Arctic. Oslo, Arctic Monitoring and Assessment Programme, 2006. pp. 11-30.
- Hole, L.R. Arctic haze, scattered light and low sun. Arctic lights. Tromsø, Tromsø Museum, Universitetet i Tromsø, 2006. pp. 47-52.
- Hole, L.R. Forsurende komponenter i luft i Ny Ålesund. Miljøovervåking Svalbard og Jan Mayen (MOSJ). *Tolkning luftforurensning i Ny Ålesund. Tolkning Forsuring.*
- Horálek, J., Denby, B., Kurfürst, P. et al. Interpolation methods for European scale air quality mapping and their application to population exposure estimates for PM₁₀. In: COST Action 633. Particulate matter: properties related to health effects. Proceedings of the international conference April 3 to 5, 2006, Austrian Academy of Sciences, Vienna, Austria. Eds.: Kuhlbusch, T. and Cassee, F. p. 102 (2006).
- Horská, A., Kazimírová, A., Dusinská, M. et al. Genetic predisposition and health effect of occupational exposure to asbestos. *Neuro Endocrinol. Lett.*, 27, Suppl. 2, 100-103 (2006).
- Huber, S., Sandanger, T.M., Brox, J. and Figenschau, Y. Persistent organic pollutants in human plasma of males from two communities in northern Norway. *Organohal. Comp.*, 68, 1601-1604 (2006).
- Hühnerfuss, H., Selke, S., Kallenborn, R., Kuhlmann, J. and Weigel, S. Enzymatic transformation of chiral pharmaceuticals in the environment as revealed by enantioselective chromatography. *Organohal. Comp.*, 68, 17-20 (2006).
- Jahnke, A., Berger, U., Huber, S., Kylin, H. and Temme, C. Using solid-phase extraction cartridges for sampling of volatile polyfluorinated alkyl substances (PFAS) in indoor air. *Organohal. Comp.*, 68, 523-526 (2006).
- Jarosinska, D., Denby, B., Pacyna, J. et al. Urinary mercury in adults in Poland living near a chloralkali plant. *Sci. Total Environ.*, 368, 335-343 (2006).
- Johansson, M., Piha, H., Kylin, H. and Merilä, J. Toxicity of six pesticides to common frog (*Rana temporaria*) tadpoles. *Environ. Toxicol. Chem.*, 25, 3164-3170 (2006).
- Jonson, J.E., Simpson, D., Fagerli, H. and Solberg, S. Can we explain the trends in European ozone levels? *Atmos. Chem. Phys.*, 6, 51-66 (2006).
- Jäger, H., James, P., Stohl, A. and Trickl, T. Long-range transport of free-tropospheric aerosol: a nine-year climatology. Reviewed and Revised Papers Presented at the 23rd International Laser Radar Conference, Nara (Japan), July 24 to 28, 2006. Proceedings. Ed. by C. Nagasawa and N. Sugimoto. The Steering Committee of the 23rd ILRC. Tokyo Metropolitan University, 2006. pp. 795-796.
- Kallenborn, R. Persistent organic pollutants (POPs) as environmental risk factors in remote high-altitude ecosystems. *Ecotox. Environ. Safety*, 63, 100-107 (2006).
- Kallenborn, R. Tungst nedbrytbare organiske miljøgifter (POP): Trender og nivåer i luft fra Zeppelinstasjonen (Ny-Ålesund, Svalbard). Miljøovervåking Svalbard og Jan Mayen (MOSJ). *Tolkning luftforurensning i Ny Ålesund. Tolkning organiske miljøgifter.*
- Kallenborn, R., Christensen, G.N. and Evenset, A. Statistical evaluation, meteorological modelling and modern trace analysis as integrated tool for source elucidation of atmospheric long-range transport to Bjørnøya (Bear island). *Organohal. Comp.*, 68, 320-323 (2006).
- Kallenborn, R., Sandanger, T. and Odland, J.O. Enantiomer signatures as evaluation tool for source elucidation of chiral environmental pollutants in human tissues. *Organohal. Comp.*, 68, 25-28 (2006).
- Keuken, M., Denby, B., Roemer, M. (Eds.) Individual case study report: trend analysis of NO₂/NO_x and PM₁₀ exceedance of daily limit values in Rotterdam. Air4EU - Air Quality Assessment for Europe: from local to continental scale. Air4EU-D7.1.1: Case study report.
- Keuken, M.P. (Ed.) Larssen, S., Sokhi, R. et al. Assessment of non-exhaust PM by road traffic in urban areas. Air4EU - Air Quality Assessment for Europe: from local to continental scale. Air4EU-D7.1.2: Case study report.
- Kocbach, A., Li, Y., Yttri, K.E., Cassee, F.R., Schwarze, P.E. and Namork, E. Physicochemical characterisation of combustion particles from vehicle exhaust and residential wood smoke. *Particle and Fibre Toxicology*, 3, 1 (2006).
- Koppe, J., Bartonova, A., Bolte, G. et al. Exposure to multiple environmental agents and their effect. *Acta Pædiatrica*, 95, suppl. 453, 106-113 (2006).
- Kreuger, J., Adielsson, S., Kylin, H. Monitoring of pesticides in atmospheric deposition in Sweden 2002-2005. Uppsala, Dept. Soil Science, Div. Water Quality Management, SLU, 2006. (Technical report, 103).
- Kupper, T., Berger, U., Huber, S. et al. Organic pollutants in compost and digestate: occurrence, fate and impacts. In: Proceedings of the International Conference ORBIT 2006 Biological Waste Management - From Local to Global, Weimar, Germany, 13th to 15th of September 2006. Kraft, E., Bidlingmaier, W., de Bertoldi, M., Diaz, L. F., Barth, J., (eds.) pp. 1147-1156.
- Kylin, H. Birds off Scoresby Sound, Eastern Greenland, in the spring of 2002.
- Ornis Svecica, 16, 164-167 (2006)
- Kylin, H. Flera grönländsvalar siktade. *Fauna och Flora*, 101, 3, s. 29.
- Kylin, H. and Kihlberg, G. Environmental pollution in the Arctic: chemicals and other stuff. In: Yearbook 2005. Stockholm, Swedish Polar Research Secretariat. pp. 98-100 (2006).
- Lambert, J.-C., Granville, J., Stebel, K. et al. Transfer of GOME Data Processor (GDP) version 4.0 to SCIAMACHY Off-line (OL) processor version 3.0: Pole-to-pole delta-validation of NO₂ column data with the NDACC/UV-Visible network. 3rd workshop on the Atmospheric Chemistry Validation of Envisat (ACEV-3), ESA/ESRIN, Frascati, Italy, 4-7 December 2006. Proceedings. Noordwijk, The Netherlands, European Space Agency (ESA SP-642).
- Larssen, T., Solberg, S., Aas, V. et al. Acid Rain in China. Rapid industrialization has put citizens and ecosystems at risk. *Environ. Sci. Technol.*, 40, 418-425 (2006).
- Laursen, I.M., Herzke, D. and Rahbek, C. Polybrominated diphenyl ethers (PBDE) in Danish Red Kites (*Milvus milvus*). *Organohal. Comp.*, 68, 1770-1771 (2006).
- Law, R.J., Allchin, C.R., Herzke, D. et al. Levels and trends of brominated flame retardants in the European environment. *Chemosphere*, 64, 187-208 (2006).
- Lazaridis, M., Hanssen, J.E., Dahlin, E. et al. Physico-chemical characterization of indoor/outdoor particulate matter in two residential houses in Oslo, Norway: measurements overview and physical properties – URBAN-AEROSOL project. *Indoor Air*, 16, 282-295 (2006).
- Lundqvist, C., Clench-Aas, J., Hofoss, D. and Bartonova, A. Self-reported headache in schoolchildren: Parents underestimate their children's headaches.

- Acta Pædiatrica, 95, 940-946 (2006).
- Lützenkirchen, S., Laupsa, H., Fløisand, I. and Böhler, T. Exposure assessment with the urban exposure management tool - case study Oslo. International conference on environmental epidemiology and exposure. Paris, 2-6 September 2006. Abstract book. Afsset Colloquium. s. 105.
- Lützenkirchen, S., Laupsa, H., Fløisand, I., Böhler, T., Hollander, W. and Broday, D.M. Exposure assessment with the urban exposure management tool - case study Oslo. Epidemiology, 17, Suppl., S59-S59 (2006).
- Maras, M., Vanparrys, C., Berger, U. et al. Estrogen-like properties of fluorotelomer alcohols as revealed by MCF-7 breast cancer cell proliferation. Environ. Health Perspect., 114, 100-105 (2006).
- Mariussen, E. and Fonnum, F. Neurochemical targets and behavioral effects of organohalogen compounds: an update. Crit. Rev. Toxicol., 36, 253-289 (2006).
- Mariussen, E., Reistad, T. and Fonnum, F. Comparative effects of brominated flame retardants and polychlorinated biphenyls on rat cerebellar granule cells. Organohal. Comp., 68, 131-134 (2006).
- Meijer, Y., Baray, J.-L., Hansen, G. et al. Long-term validation of GOMOS, MIPAS and Sciamachy ozone and temperature profiles by the Envisat Quality Assessment with Lidar (EQUAL) project. In: Abstract book. Atmospheric science conference, ESA-ESRIN, Frascati, Italy, 8-12 May 2006.
- Meijer, Y.J., Swart, D.P.J., Hansen, G. et al. Evaluation of Global Ozone Monitoring Experiment (GOME) ozone profiles from nine different algorithms. J. Geophys. Res., 111, D21306, doi: 10.1029/2005JD006778 (2006).
- Methven, J., Arnold, S.R., Stohl, A. et al. Establishing Lagrangian connections between observations within air masses crossing the Atlantic during the International Consortium for Atmospheric Research on Transport and Transformation experiment. J. Geophys. Res., 111, D23S62, doi: 10.1029/2006JD007540 (2006).
- Millet, D.J., Goldstein, A.H., Stohl, A. et al. Chemical characteristics of North American surface layer outflow: Insights from Chebogue Point, Nova Scotia. J. Geophys. Res., 111, D23S53, doi: 10.1029/2006JD007287 (2006).
- Morris, G.A., Hersey, S., Stohl, A. et al. Alaskan and Canadian forest fires exacerbate ozone pollution over Houston, Texas, on 19 and 20 July 2004. J. Geophys. Res., 111, D24S03, doi: 10.1029/2006JD007090 (2006).
- Moshammer, H., Bartonova, A., Hanke, W. et al. Air pollution: A threat to the health of our children. Acta Pædiatrica, 95, suppl. 453, 93-105 (2006).
- Myhre, G., Stordal, F., Gausemel, I., Nielsen, C.J. and Mahieu, E. Line-by-line calculations of thermal infrared radiation representative for global condition: CFC-12 as an example. J. Quant. Spectrosc. Radiat. Transfer, 97, 317-331 (2006).
- Neuman, J.A., Parrish, D.D., Stohl, A. et al. Reactive nitrogen transport and photochemistry in urban plumes over the North Atlantic Ocean. J. Geophys. Res., 111, D23S54, doi: 10.1029/2005JD007010 (2006).
- Orsolini, Y. Transport studies in the stratosphere using MIPAS observations. In: Abstract book. Atmospheric science conference, ESA-ESRIN, Frascati, Italy, 8-12 May 2006.
- Orsolini, Y. Når sola bryter ned ozonlaget i store høyder. Cicerone, årg. 15, nr. 1, 28-29.
- Orsolini, Y.J. and Nikulin, G. A low-ozone episode during the European heatwave of August 2003. Quart. J. Roy. Meteorol. Soc., 132, 667-680 (2006).
- Owen, R.C., Cooper, O.R., Stohl, A., and Honrath, R.E. An analysis of the mechanisms of North American pollutant transport to the central North Atlantic lower free troposphere. J. Geophys. Res., 111, D23S58, doi: 10.1029/2006JD007062 (2006).
- Pacyna, E.G., Pacyna, J.M., Fudala, J., Strzelecka-Jastrzab, E., Hlawiczka, S. and Panasiuk, S. Mercury emissions to the atmosphere from anthropogenic sources in Europe in 2000 and their scenarios until 2020. Sci. Total Environ., 370, 147-156 (2006).
- Pacyna, E.G., Pacyna, J.M., Steenhuisen, F. and Wilson, S. Global anthropogenic mercury emission inventory for 2000. Atmos. Environ., 40, 4048-4063 (2006).
- Pacyna, J.M. and Manø, S. Trace gases in the European coastal zone. Estuarine, Coastal and Shelf Science, 70, 335-337 (2006).
- Pacyna, J.M., van der Gon, H.D., Reis, S., Travníkov, O. and Vestreng, V. Evaluation of inventories of heavy metals and persistent organic pollutants within the convention on LRTAP. Inventory Review 2006; Emission Data reported to the LRTAP Convention and NEC Directive. Stage 1, 2 and 3 review and evaluation of inventories of HMs and POPs. Oslo, Norwegian Meteorological Institute (EMEP/MSC-WV Technical report 1/2006). pp. 51-92.
- Petkov, B., Vitale, V., Hansen, G. et al. Narrowband filter radiometer for ground-based measurements of global ultraviolet solar irradiance and total ozone. Appl. Optics., 45, 4383-4395 (2006).
- Plass-Dülmer, C., Schmidbauer, N., Slemr, F. and D'Souza, H. European hydrocarbon intercomparison experiment AMOHA part 4: Canister sampling of ambient air. J. Geophys. Res., 111, D04306, doi: 10.1029/2005JD006351.
- Polanska, K., Hanke, W., Bartonova, A. et al. Environmental tobacco smoke exposure and children's health. Acta Pædiatrica, 95, suppl. 453, 86-92 (2006).
- Quinn, P.K., Bates, T.S., Stohl, A., et al. Impacts of sources and aging on submicrometer aerosol properties in the marine boundary layer across the Gulf of Maine. J. Geophys. Res., 111, D23S36, doi: 10.1029/2006JD007582 (2006).
- Reistad, T., Fonnum, F. and Mariussen, E. Neurotoxicity of the pentabrominated diphenyl ether mixture, DE-71, and hexabromocyclododecane (HBCCD) in rat cerebellar granule cells in vitro. Arch. Toxicol., 80, 785-796 (2006).
- Renard, J.B., Blély, P.L., Bourgeois, Q., Chartier, M., Goutail, F. and Orsolini, Y.J. Origin of the January-April 2004 increase in stratospheric NO₂ observed in the northern polar latitudes. Geophys. Res. Lett., 33, L11801 (2006).
- Reth, M., Ciric, A., Christensen, G.N., Heimstad, E.S. and Oehme, M. Short- and medium-chain chlorinated paraffins in biota from the European Arctic - differences in homologue group patterns. Sci. Total Environ., 367, 252-260 (2006).
- Rex, M., Salawitch, R.J., Braathen, G.O. et al. Arctic winter 2005: Implications for stratospheric ozone loss and climate change. Geophys. Res. Lett., 33, L23808, doi: 10.1029/2006GL026731 (2006).
- Riddle, E.E., Voss, P.B., Stohl, A. et al. Trajectory model validation using newly developed altitude-controlled balloons during the International Consortium for Atmospheric Research on Transport and Transformations 2004 campaign. J. Geophys. Res., 111, D23S57, doi: 10.1029/2006JD007456 (2006).
- Sabbioni, C., Cassar, M., Grøntoft, T. et al. Global climate change impact on built heritage and cultural landscapes. In: Heritage, weathering and conservation. International conference on heritage, weathering and conservation, Madrid, Spain, June 2006. Ed. by: R. Fort, M. Alvarez de Buergo, M. Gomez-Heras and C. Vasquez-Calvo. London, Taylor & Francis, 2006. pp. 395-401.
- Sandanger, T.M., Brustad, M., Sandau, C.D. and Lund, E. Levels of persistent organic pollutants (POPs) in a coastal northern Norwegian population with high fish-liver intake. J. Environ. Monit., 8, 552-557 (2006).
- Sandanger, T.M., Brustad, M., Sandau, C.D. and Lund, E. Levels of persistent organic pollutants (POPs) in a coastal northern Norwegian population with a high fish-liver intake. Organohal. Comp., 68, 464-467.
- Schlabach, M. and Gjerstad, K.I. Deposition of airborne BFR around the city of Ålesund, Norway. Organohal. Comp., 68, 73-76 (2006).
- Sivertsen, B. Air pollution impacts from open air burning. International conference on waste management and the environment, 3, Malta 2006. Waste management and the environment, III. Ed. by V. Popov et al. Southampton, WIT press, 2006. pp. 449-457.
- Skjellkvåle, B.L. (red.) OPS, TOV Luft og nedbør: Aas, W., Berg, T., Manø, S., Solberg, S. og Yttri, K.E. Overvåking av langtransporterte forurensninger 2005. Sammendragsrapport. Oslo, NIVA, 2006. (Statlig program for forurensningsovervåking. Rapport 957/2006). (TA-2183/2006). (NIVA-rapport 5231-2006).
- Staruchová, M., Volkovová, K., Dusinská, M. et al. Importance of diet in protection against oxidative damage. Neuro Endocrinol. Lett., 27, Suppl. 2, I12-I15 (2006).
- Stebel, K., Hansen, G., Meijer, Y. et al. Comparison of GOMOS high-resolution temperature profiles (HTRP) with data from selected EQUAL lidar and radiosonde sites. 3rd workshop on the Atmospheric Chemistry Validation of Envisat (ACEV-3), ESA/ESRIN, Frascati, Italy, 4-7 December 2006. Proceedings. Noordwijk, The Netherlands, European Space Agency (ESA SP-642).

- Stebel, K., Hansen, G., Meijer, Y., et al. Validation of the GOMOS high-resolution temperature product (HRTP) using lidar. In: Abstract book. Atmospheric science conference, ESA-ESRIN, Frascati, 8-12 May 2006.
- Stohl, A. Characteristics of atmospheric transport into the Arctic troposphere. *J. Geophys. Res.*, 111, D11306, doi:10.1029/2005JD006888 (2006).
- Stohl, A. and Law, K. Polar Study using Aircraft, Remote Sensing, Surface Measurements and Models, of Climate, Chemistry, Aerosols, and Transport (POLARCAT) – An International Polar Year (IPY) Activity jointly endorsed by IGAC, SPARC and iLEAPS. IGAC Activities Newsletter, 33, 16-32 (2006).
- Stohl, A. and Tørseth, K. Atmospheric pollution into the Arctic Region. *Nordic Space*, 3, 24-26 (2006).
- Stohl, A., Andrews, E., Burkhardt, J.F., Forster, C., Lunder, C., Stebel, K., Tørseth, K., Yttri, K.E. et al. Pan-Arctic enhancements of light absorbing aerosol concentrations due to North American boreal forest fires during summer 2004. *J. Geophys. Res.*, vol. 111, D22214, doi:10.1029/2006JD007216.
- Stohl, A., Berg, T., Burkhardt, J.F., Fjæraa, A.M., Forster, C., Lunder, C., Solberg, S., Stebel, K., Tørseth, K., Yttri, K.E. et al. Arctic smoke – record high air pollution levels in the European Arctic due to agricultural fires in Eastern Europe. *Atmos. Chem. Phys. Discuss.*, 6, 9655-9722 (2006).
- Stohl, A., Forster, C., Huntrieser, H., et al. Aircraft measurements over Europe of an air pollution plume from Southeast Asia – aerosol and chemical characterization. *Atmos. Chem. Phys. Discuss.*, 6, 12611-12670 (2006).
- Storelvmo, T., Kristjánsson, J.E., Myhre, G., Johnsrud, M. and Stordal, F. Combined observational and modeling based study of the aerosol indirect effect. *Atmos. Chem. Phys.*, 6, 3583-3601 (2006).
- Streibel, M., Rex, M., Braathen, G.O., et al. Chemical ozone loss in the Arctic winter 2002/2003 determined with Match. *Atmos. Chem. Phys.*, 6, 2783-2792 (2006).
- Strzelecka-Jastrzab, E., Panasiuk, D., Fudala, J., Pacyna, J.M., and Hlawiczka, S. Prognozowanie wielkości emisji rtęci do powietrza z obszaru Europy do roku 2020. *Ochrona Powietrza i Problemy Odpadów*, 6, 178-183.
- Su, Y., Hung, H., Kallenborn, R. et al. Spatial and seasonal variations of hexachloro-cyclohexanes (HCHs) and hexachlorobenzene (HCB) in the Arctic atmosphere. *Environ. Sci. Technol.*, 40, 6601-6607 (2006).
- Sugita, T., Nakajima, H., Braathen, G.O. et al. Ozone profiles in the high-latitude stratosphere and lower mesosphere measured by the Improved Limb Atmospheric Spectrometer (ILAS)-II: Comparison with other satellite sensors and ozonesondes. *J. Geophys. Res.*, 111, D11502, doi:10.1029/2005JD006439 (2006).
- Sundt, R.C., Pampanin, D.M., Herzke, D. et al. The BEEP Stavanger Workshop: Mesocosm exposures. *Aquatic Toxicol.*, 78, suppl. 1, 5-12 (2006).
- Svenningsen, G., Larsen, M.H., Nordlien, J.H. and Nisancioglu, K. Effect of thermomechanical history on intergranular corrosion of extruded AlMgSi(Cu) model alloy. *Corrosion Science*, 48, 3969-3987 (2006).
- Sverdrup, L.E., Hartnik, T., Mariussen, E. and Jensen, J. Toxicity of three halogenated flame retardants to nitrifying bacteria, red clover (*Trifolium pratense*), and a soil invertebrate (*Enchytraeus crypticus*). *Chemosphere*, 64, 1, 96-103 (2006).
- Szczepanski, W. et al. NILU contributors: Pacyna, E. and Pacyna, J. The catalogue of integrated water bodies in river basin districts in Poland with focus on pressures and impacts, including plan of action. Part I. Warszawa, Chief Inspectorate of Environmental Protection.
- Tennøy, A., Kværner, J. and Gjerstad, K.I. Uncertainty in environmental impact assessment predictions: the need for better communication and more transparency. *Impact Assess. Proj. Appr.*, 24, 45-56 (2006).
- Tupper, A., Davey, J., Stewart, P., Stunder, B., Servranckx, R. and Prata, F. Aircraft encounters with volcanic clouds over Micronesia, Oceania, 2002-03. *Aust. Met. Mag.*, 55, 289-299 (2006).
- Tørseth, K. Luftkvalitet. I: Workshop om 'Nordiskt samarbeite på havs och luftområdena 2006-2020', Helsinki 4. april 2006. København, Nordisk ministerråd, Hav- og luftgruppen, pp. 28-34 (2006).
- Tørseth, K. Crucial issues related to sustainable and rational data provision. Abstract. Chemical data assimilation for the observation of the earth's atmosphere. An EU-ACCENT/WMO-GAW expert workshop in support of IGACO implementation. Ed. by Barrie, L.A., Burrows, J.P., Monks, P., Niskovic, S. and Borrelli, P. Rbino. ACCENT Secretariat, 2006. (WMO Technical report 1360). (GAW report 169). (ACCENT report 7.2006), p. 129.
- Tørseth, K., Vik, A.F. and Prata, F. Satellite remote sensing - strategies and applicability in relation to EMEP objectives. In: Remote sensing of air pollution. Ed by: Borowiak, A. and Dentener, F. DG Joint Research Centre, Institute for Environment and Sustainability, Luxembourg, Office for Official Publications of the European Communities, 2006. (EUR 22330 EN) pp. 48-50.
- Valdersnes, S., Kallenborn, R. and Sydnæs, L.K. Identification of several Tonalide® transformation products in the environment. *Internat. J. Environ. Anal. Chem.*, 86, 461-471 (2006).
- Van Den Hazel, P., Zuurbier, M., Babisch, W., Bartonova, A. et al. Today's epidemics in children: Possible relations to environmental pollution and suggested preventive measures. *Acta Pædiatrica*, 95, suppl. 453, 18-25 (2006).
- Vasskog, T., Berger, U., Samuelsen, P.-J., Kallenborn, R. and Jensen, E. Selective serotonin reuptake inhibitors in sewage influents and effluents from Tromsø, Norway. *J. Chrom. A*, 1115, 187-195 (2006).
- Vetter, W., von der Recke, R., Herzke, D. and Nygård, T. Natural and man-made organobromine compounds in eggs and livers of European shag from Sklinna, Central Norway. *Organohal. Comp.*, 68, 1-4 (2006).
- Viallon, J., Ladegard, N., Marsteen, L., Tørnkvist, K. et al. International Comparison CCQM-P28: Ozone at ambient level. *Metrologia*, 43, Tech. Suppl., 08010.
- Vogler, C., Brönnimann, S. and Hansen, G. Re-evaluation of the 1950-1962 total ozone record from Longyearbyen, Svalbard. *Atmos. Chem. Phys.*, 6, 1-11 (2006).
- Walker, S.E. An introduction to Sequential Importance Resampling. Data assimilation in regional scale atmospheric chemical models. NMR Workshop at NILU, Kjeller Norway, 15 November 2005. Ed. by B. Denby. Kjeller (NILU OR 43/2006). pp. 44-56.
- Walker, S.E., Gjerstad, K.I. and Berger, J. Individual case study report: Data assimilation in open road line source modelling. Air4EU - Air Quality Assessment for Europe: from local to continental scale. Air4EU-D7.1.4: Case study report.
- Walker, S.E., Lützenkirchen, S., McInnes, H., Dudek, A. and Laupsa, H. Individual case study report: Model and observation uncertainty analysis towards data assimilation on the urban scale. Air4EU - Air Quality Assessment for Europe: from local to continental scale. Air4EU-D7.1.3: Case study report.
- Walker, S.E., Schaap, M., and Slini, L. Cross-cutting issue milestone report 6.8 (M.5). Data assimilation. Air4EU - Air Quality Assessment for Europe: from local to continental scale. Air4EU-M.5: Data assimilation.
- Wania, F., Breivik, K., Persson, N.J. and McLachlan, M.S. CoZMo-POP 2 - A fugacity-based dynamic multi-compartmental mass balance model of the fate of persistent organic pollutants. *Environ. Model. Software*, 21, 868-884 (2006).
- Warneke, C., de Gouw, J.A., Stohl, A. et al. Biomass burning and anthropogenic sources of CO over New England in the summer 2004. *J. Geophys. Res.*, 111, D23S15, doi:10.1029/2005JD006878 (2006).
- Webb, A.R. and Engelsen, O. Calculated ultraviolet exposure levels for a healthy vitamin D status. *Photochem. Photobiol.*, 82, 1697-1703 (2006).
- Weber, J., Halsall, C.J., Kylin, H. et al. Endosulfan and gamma-HCH in the Arctic: An assessment of surface seawater concentrations and air-sea exchange. *Environ. Sci. Technol.*, 40, 7570-7576 (2006).
- Wilson, S.J., Steenhuisen, F., Pacyna, J.M. and Pacyna, E.G. Mapping the spatial distribution of global anthropogenic mercury atmospheric emission inventories. *Atmos. Environ.*, 40, 4621-4632 (2006).
- Woldegiorgis, A., Borgen, A., Dye, C., Schlabach, M. et al. Results from the Swedish National Screening Programme 2005. Subreport 3: Perfluorinated alkylated substances (PFAS). Stockholm, IVL Swedish Environmental Research Institute (IVL Report B1698).
- Wolkers, H., Lydersen, C., Kovacs, K.M., Burkow, I. and van Bavel, B. Accumulation, metabolism, and food-chain transfer of chlorinated and brominated

contaminants in subadult white whales (*Delphinapterus leucas*) and narwhals (*Monodon monoceros*) from Svalbard, Norway. *Arch. Environ. Contam. Toxicol.* 50, 69–78 (2006).

Zalko, D., Perdu, E., Reistad, T., Riu, A., Garcia, A. and Mariussen, E.

Biotransformation of the brominated flame retardant tetrabromobisphenol-a by human neutrophil granulocytes. *Organohal. Comp.*, 68, 410-413 (2006).

Zukowska, B., Breivik, K. and Wania, F.

Evaluating the environmental fate of pharmaceuticals using a level III model based on poly-parameter linear free energy relationships. *Sci. Total Environ.*, 359, 177-187 (2006).

Ødegaard, V., Gjerstad, K.I. og Bjergene, N.

Bedre byluft. Evaluering av prognosemodell for meteorologi og luftkvalitet vinteren 2005/2006. Oslo, Meteorologisk institutt (met.no report no. 8/2006).

Aas, W., Skjelkvåle, B.L. and Andreassen, K.

Report on national ICP IM relevant activities in Norway. In: 15th annual report 2006. UNECE ICP Integrated Monitoring. Ed. by Kleemola, S. and Forsius, M. (The Finnish Environment, 30, 2006). pp. 79-81.

SCIENTIFIC REPORTS

Fløisand, I. (ed.), Bøhler, T. (coord.)

Urban Exposure. Final report. OR 01/2006

Tønnesen, D.

RV 303 Dronningens gate. Assessment of air pollution at Torstrand school. (N) OR 02/2006

Dye, C., Bjerke, A., Schmidbauer, N. and Manø, S.

Determination of air pollutants in indoor artificial turf areas. (N) OR 03/2006

Haugsbakk, I.

Dispersion calculations of NO₂ emissions from a heating plant in Kvavik at Lyngdal. (N) OR 04/2006

Haugsbakk, I. and Tønnesen, D.

Dispersion calculations at Borregaard, Sarpsborg. (N) OR 05/2006

Slørdal, L.H. (ed.)

FUMAPEX. Improved UAQIFs implemented and applied in the target cities. OR 06/2006

Kallenborn, R. and Manø, S.

Polycyclic aromatic hydrocarbons (PAH) in ambient air, smoke and internal air samples during the mine fire incident in Svea Nord 2005. (N) OR 07/2006

Guerreiro, C., Sivertsen, B. and Laupsa, H.

QADAK mission 2, 3 - 12 October 2005. OR 08/2006

Guerreiro, C., Sivertsen, B. and Laupsa, H.

QADAK mission 2, 3 - 12 October 2005. (French) OR 09/2006

Sivertsen, B. and Laupsa, H.

Air Quality Management Project, Dhaka, Bangladesh, 2006. Inception report. OR 10/2006

Sivertsen, B. and Laupsa, H.

Air Quality Management Project, Dhaka, Bangladesh, 2006. Final report, Mission 1. 16 – 27 January 2006. OR 11/2006

Muskett, C. and Bøhler, T.

Abu Dhabi air quality strategy. Abu Dhabi Air Monitoring Network Supervision. OR 12/2006

Tørnkvist, K.K.

Quality manual for the reference laboratory. Abu Dhabi Air Monitoring Network Supervision. OR 13/2006

Knudsen, S., McInnes, H., Larssen, T. and Høgåsen, T.

EIF-air. Drilling, production and transport Norne. OR 14/2006

Bøhler, T.

Revised EAD station network. Abu Dhabi Air Monitoring Network Supervision. OR 15/2006

Tønnesen, D.

Assessment of meteorological measurements on Melkøya. Environmental surveillance of emissions to air from Snøhvit-Hammerfest LNG. (N) OR 16/2006

Sivertsen, B., Laupsa, H. and Guerreiro, C.

Ambient air pollution study Dakar 2005. October - December 2005. OR 17/2006

Bøhler, T.

Abu Dhabi air quality standards. Abu Dhabi Air Monitoring Network Supervision. OR 18/2006

Sandanger, T.

Screening of emerging contaminants in human blood plasma from 12 randomly selected individuals. (N) OR 19/2006

Tønnesen, D. and Haugsbakk, I.

Dispersion calculations at Kristiansand. (N) OR 20/2006

Innset, B.

Investigation of indoor air in a new apartment in Pilestredet Park, Oslo. (N) OR 21/2006

Knudsen, S. and

Haugsbakk, I.

Dispersion calculations SEV-Sundsværket. (N) OR 22/2006

Barrett, K.

Pollutant deposits and air quality around the North Sea and N.E. Atlantic in 2004. OR 23/2006

Haugsbakk, I.

Dispersion calculations of NO₂ emissions from a heating plant in Stavanger. (N) OR 24/2006

Tønnesen, D.

Update on emissions from ships, Melkøya. Environmental surveillance of emissions to air from Snøhvit-Hammerfest LNG. (N) OR 25/2006

Haugsbakk, I.

Air pollution from Rv57 – Herlandstunnelen. (N) OR 26/2006

Haugsbakk, I. and

Tønnesen, D.

Dispersion calculations at Borregaard, Sarpsborg. (N) OR 27/2006

Larssen, S., Laupsa, H., Slørdal, L.H., Tønnesen, D. and Hagen, L.O.

Calculation of PM_{2.5} from woodburning. (N) OR 28/2006

Haugsbakk, I. and

Knudsen, S.

Dispersion calculations of NO₂ emissions from a heating plant at Kambo. (N) OR 29/2006

Muskett, C. and Bøhler, T.

Abu Dhabi noise strategy. Abu Dhabi Monitoring Network Supervision. OR 30/2006

Gjerstad, K.I.

Modeled concentrations in air and depositions based on estimated emission. Environmental surveillance of emissions to air from Snøhvit-Hammerfest LNG. (N) OR 31/2006

Marsteen, L.

Air Quality Management Project, Dhaka, Bangladesh, 2006. AQMP quality manual. OR 32/2006

Larssen, S. and Marsteen, L.

Air Quality Management Project, Dhaka, Bangladesh, 2006. Final report, Mission 2, 6 – 17 March 2006. OR 33/2006

Nguyen, T.N.

Assessment of governmental air management systems. Abu Dhabi Air Monitoring Network Supervision. OR 34/2006

Manø, S. and Berg, T.

Data from long range transported polluted air and deposition. (N) OR 35/2006

Aas, W., Solberg, S., Berg, T., Manø, S. and Yttri, K.E.

Monitoring of long-range transported air pollutants. Annual report for 2005. (N) OR 36/2006

Sivertsen, B.

Air Quality Monitoring Programme for Dakar. Result of the design study. OR 37/2006

Tønnesen, D.

Dispersion calculations at Borregaard, Sarpsborg. (N) OR 38/2006

Sivertsen, B. (ed.)

Ho Chi Minh City Environmental Improvement Project. Air Quality Monitoring and Reference Laboratory. Presentations from the seminars at NILU during the visit 24-29 April 2006. OR 39/2006

Haugsbakk, I. and

Tønnesen, D.

Dispersion calculations of fluoride emissions production of heating boilers at Lisleby. (N) OR 40/2006

Svenningsen, G.

Particulate matter analysis of compressed air. (N) OR 41/2006

Svenningsen, G.

Identification of particles and fibers in dust from a school in Kristiansund N. (N) OR 42/2006

Bøhler, T.

Screening report on bid evaluation Step 1, Abu Dhabi Air Monitoring Network Supervision OR 43/2005

Denby, B. (ed.)

Data assimilation in regional scale atmospheric chemical models. NMR Workshop av NILU, Kjeller

Norway, 15 November 2005.

OR 43/2006

Muskett, C. and Bøhler, T.

Technical guidance document. Preparation of atmospheric emission inventories. Abu Dhabi Air Monitoring Network Supervision. OR 44/2006

Muskett, C. and Bøhler, T.

Technical guidance document. Industrial permitting. Abu Dhabi Air Monitoring Network Supervision. OR 45/2006

Muskett, C. and Bøhler, T.

Technical guidance document. Inspection activities and procedures. Abu Dhabi Air Monitoring Network Supervision OR 46/2006

Muskett, C. and Bøhler, T.

Technical guidance document. Compliance monitoring and emission testing. Abu Dhabi Air Monitoring Network Supervision. OR 47/2006

Muskett, C. and Bøhler, T.

Technical guidance document. Assessment and management of dust. Abu Dhabi air monitoring network supervision. OR 48/2006

Lükewille, A. and Bøhler, T.

Technical guidance document. National standards to control greenhouse gas emissions in Abu Dhabi. Abu Dhabi Air Monitoring Network Supervision. OR 49/2006

Muskett, C. and Bøhler, T.

Abu Dhabi occupational health strategy. Abu Dhabi Air Monitoring Network Supervision. OR 50/2006

Haugsbakk, I.

Dispersion calculations of NO₂ emissions from a garbage fuelled heating plant at Karmøy. (N) OR 51/2006

Haugsbakk, I. and

Tønnesen, I.

Dispersion calculations of NO₂ emissions from heating plants at Hvalsmoen. (N) OR 52/2006

Sivertsen, B., Larssen, S., Laupsa, H. and Marsteen, L.

Air Quality Management Project, Dhaka, Bangladesh, 2006. Final report. OR 53/2006

Bøhler, T.

Templates for network reporting. Abu Dhabi air

- monitoring network supervision. OR 54/2006
- Kobernus, M., Høiskar, B.A. and Endregard, G.** Terms of reference document for public information dissemination system of air quality in Abu Dhabi. Abu Dhabi Air Monitoring Network Supervision. OR 55/2006
- Tørnkvist, K.K.** Technical specification for establishing the Reference Laboratory. Abu Dhabi Air Monitoring Network supervision. OR 56/2005
- Denby, B. and Horálek, J.** Expert support on near real time ozone interpolation and communication. OR 56/2006
- Haugsbakk, I. and Tønnesen, D.** Air pollution from planned tunnels at E6 Nidelv Bru-Grillstad. (N) OR 57/2006
- Sivertsen, B., Laupsa, H. and Guerreiro, C.** Ambient air pollution study Dakar 2005. October - December 2005. (French) OR 58/2006
- Haugsbakk, I. and Tønnesen, D.** Air pollution from E39 culverts at Sandved-Stangeland. (N) OR 59/2006
- Sivertsen, B. and Than, T.N.** Support for the Review of Air Quality Management Sub-component for the Hanoi Urban Transport and Development Project, Inception report. OR 60/2006
- Böhler, T.** Project Summary Report. Abu Dhabi Air Monitoring Network Supervision. OR 61/2006
- Böhler, T. and Muskett, C.** Development of national air quality control programmes. Paper to be presented at "Environment 2007". Abu Dhabi Monitoring Network Supervision. OR 62/2006
- Dreiem, R.** On the job training and auditing of the Air Quality Monitoring Network in South Durban. (N) OR 63/2006
- Marsteen, L.** Quality manual for the AQM network. Abu Dhabi Air Monitoring Network Supervision. OR 64/2006
- Gjerstad, K.I.** Evaluation of emission from National port at Tromsø. (N) OR 65/2006
- Haugsbakk, I. and Tønnesen, D.** Dispersion calculations of NO₂ emissions from a heating plant at Hamar. (N) OR 66/2006
- Mylre, C.L., Edvardsen, K., Hansen, G.H., Stebel, K., Høiskar, B.A.K., Svendby, T.M., Vik, A.F. and Dahlback, A.** Monitoring of the atmospheric ozone layer and natural ultraviolet radiation. Annual report 2005. OR 67/2006
- Tønnesen, D.** New profile for the road tunnel between Sinsen and Økern. Assessment of air quality impact. (N) OR 68/2006
- Hagen, L.O., Sivertsen, B. and Arnesen, K.** Air quality monitoring in the border areas of Norway and Russia - progress report April 2005 - March 2006. (N) OR 69/2006
- Marsteen, L.** Quality manual for the AQM network. Air quality monitoring for AMPC and SCIPO. OR 70/2006
- Sivertsen, B.** Air Quality Monitoring Programme for Dakar. Result of the design study. (French) OR 71/2006
- Guerreiro, C., Sivertsen, B. and Laupsa, H.** QADAK Mission 3. 27 February - 10 March 2006. (French) OR 72/2006
- Tønnesen, D.** Dispersion modelling of emission from Follum Fabrikker. (N) OR 73/2006
- Guerreiro, C., Sivertsen, B. and Laupsa, H.** QADAK Mission 3. 27 February - 10 March 2006. OR 74/2006
- Jablonska, H.B.** Quarterly report I February 2006 - 30 April 2006. Environmental surveillance of emissions to air from Snøhvit-Hammerfest LNG. (N) OR 75/2006
- Haugsbakk, I.** Dispersion calculations from "Nordmøre Energienvinning" heating plant. (N) OR 76/2006
- Marsteen, L., Guerreiro, C. and Sivertsen, B.** Technical specification for establishing the Monitoring Network and Calibration Laboratory in Dakar. (French) OR 77/2006
- Sivertsen, B. and Thanh, T.N.** Support for the Review of Air Quality Management Sub-component for the Hanoi Urban Transport and Development Project, Final report. OR 78/2006
- Ødegård, R. and Nguyen, T.N.** Integration of ScanAir/Met I and AirQUIS 2003 for Abu Dhabi Water & Electricity Authority (ADWEA) Research Center. OR 79/2006
- Knudsen, S., Solberg, S., Wathne, B.M., Høgåsen, T., Magnusson, J., Tollefsen, K.E., Aarrestad, P.A., Reitan, O., Stebel, K. and Walker, S.E.** Updated environmental assessment of the regional impact from the oil activity in the North Sea. Regular atmospheric emissions - consequences. (N) OR 80/2006
- Knudsen, S. and Haugsbakk, I.** Revised Dispersion calculations SEV-Sundsverket. (N) OR 81/2006
- Slørdal, L.H. and McInnes, H.** Evaluation of abatement measures for PM₁₀ in Oslo and Trondheim for the year 2010. (N) OR 82/2006
- Sivertsen, B. and Dudek, A.** Modelling air pollution in Hanoi. OR 83/2006
- Ødegård, R.** AirQUIS - Follow-up training. AirQUIS - Air dispersion modelling. OR 84/2006
- Haugsbakk, I. and Tønnesen, D.** Calculating air quality at The German School, Nydalen. (N) OR 85/2006
- Gjerstad, K.I., Låg, M., Reitan, O. and Aarrestad, P.A.** Dispersion calculation for a gas power plant at Elnesvågen. (N) OR 86/2006
- Haugsbakk, I. and Tønnesen, D.** Rektorhaugen kindergarten. Calculating air quality. (N) OR 87/2006
- Böhler, T.** EAD guidelines for indoor air quality for office premises. Abu Dhabi Air Monitoring Network Supervision. OR 88/2006
- Hagen, L.O.** Measurements of air quality in Sunndal, 2006. (N) OR 89/2006
- Slørdal, L.H., McInnes, H., Laupsa, H. and Walker, S.E.** Dispersion and exposure calculation of PM₁₀, NO₂ and benzene for Oslo and Trondheim for the year 2005. OR 90/2006
- Tønnesen, D., McInnes, H. and Laupsa, H.** Calculation of air quality in connection with development of the road system in Oslo. (N) OR 91/2006
- Haugsbakk, I.** Monitoring of SO₂, meteorology and PM₁₀ at Orkla Exolon AS, Orkanger. 22 June 2005 - 31 August 2006. (N) OR 92/2006
- Ødegård, R.** Dispersion calculation and model evaluation of Al-Taweelah Power Plant, Abu Dhabi. AirQUIS - Air dispersion modelling. OR 93/2006
- Jablonska, H.B.** Quarterly report I May 2006 - 31 July 2006. Environmental surveillance of emissions to air from Snøhvit-Hammerfest LNG. (N) OR 94/2006
- Tønnesen, D.** Dispersion calculations for a gas power plant with catching system for CO₂ at Kårstø. (N) OR 95/2006
- Larssen, S.** Air quality management for Chittagong. Inception report. OR 96/2006
- Larssen, S. and Hagen, L.O.** A study of the contribution to pollution of suspended particles in Oslo caused by wood burning and other sources. Stage I: Estimation of the contribution to PM₁₀ caused by wood burning based on tracer gas measurements. (N) OR 97/2006

EMEP REPORTS

- Fjæraa, A.M.** Data report 2004. Acidifying and eutrophying compounds. CCC 01/2006
- Fjæraa, A.M.** Ozone measurements 2004. CCC 02/2006
- Yttri, K.E. and Aas, W.V. (eds.)** Measurements of particulate matter: status report 2006. CCC 03/2006
- Aas, W.V. (ed.)** Data quality 2004, quality assurance, and field comparisons. CCC 04/2006
- Aas, W.V. and Breivik, K.** Heavy metals and POP measurements, 2004. CCC 07/2006
- Solberg, S.** VOC measurements 2004. CCC 08/2006
- Ilyin, I., Travnikov, O. and Aas, W.V.** Heavy metals: Transboundary pollution of the environment. Moscow/Kjeller, Meteorological Synthesizing Centre - East/Chemical Coordinating Centre, 2006 (EMEP Status Report 2/2006).
- Gusev, A., Mantseva, E., Rozovskaya, O., Shatalov, V., Strukov, B., Vulykh, N., Aas, W.V. and Breivik, K.** Persistent organic pollutants in the environment. Moscow/Kjeller, Meteorological Synthesizing Centre - East/Chemical Coordinating Centre, 2006 (EMEP Status Report 3/2006).
- Yttri, K.E. and Aas, W.V. (eds.)** Yttri, K.E., Aas, W.V., Forster, C., Tørseth, K., Tsyro, S., Tarrasón, L., Simpson, D., Vestreng, V., Lazaridis, M., Kopanakis, I., Aleksandropoulou, V., Gehrig, R., Adams, M., Woodfield, M., Putaud, J.P. and Schultz, M. Transboundary Particulate Matter in Europe: Status Report 2006. Kjeller, Norwegian Institute for Air Research, 2006 (EMEP Status Report 4/2006).
- Shatalov, V., Mantseva, E., Baart, A., Bartlett, P., Breivik, K., Christensen, J., Dutchak, S., Gong, S., Gusev, A., Hansen, K.M., Hollander, A., Huang, P., Hungerbühler, K., Jones, K., Petersen, G., Roemer, M.,**

Scheringer, M., Stocker, J., Suzuki, N., Sweetman, A., van de Meent, D. and Wegmann, F.
POP model intercomparison study. Stage II. Comparison of mass balance estimates and sensitivity studies. Moscow, Meteorological Synthesizing Centre - East, 2006 (EMEP/MSC-E Technical Report 5/2006).

Vestreng, V., Rigler, E., Adams, M., Kindbom, K., Pacyna, J.M., van der Gon, H.D., Reis, S. and Travnikov, O.
Inventory Review 2006; Emission Data reported to the LRTAP Convention and NEC Directive. Stage 1, 2 and 3 review and evaluation of inventories of HMs and POPs. Oslo, Norwegian Meteorological Institute (EMEP/MSC-W Technical report 1/2006).

TECHNICAL REPORTS

McInnes, H., Jablonska, H.B. and Innset, B.
Tools for emission assessment and abatement studies.
TR 01/2006

Vik, A.F., Fjæraa, A.M. and Harris, N. (eds.)
NADIR News No. 1/2006.
TR 02/2006

Krognes, T., Johnsrud, M. and Gjerstad, K.I.
AirQUIS monitoring. Pre-release user's guide.
TR 03/2006

Krognes, T., Larsen Våler, R., Johnsrud, M., Waagsbø, M. and Gjerstad, K.I.
Phase 0 Test of AirQUIS Monitoring.
TR 04/2006

Vik, A.F., Krognes, T., Walker, S.-E., Bjørndalsæter, S., Stoll, C., Bårde, T., Paltiel, R. and Gloslie, B.
ESA Campaign Database (CDB) User manual.
TR 05/2006

Nilsen, T.
Datalogger NDL3 User manual.
TR 06/2006

Vik, A.F., Bjørndalsæter, S., Backman, L., Staehelin, J. and Wittrock, F.
Report on the RETRO database for observations and recommendations for optimal use of the data (D2-2).
TR 07/2006

SELECTED LECTURES

Sivertsen, B. and Laupsa, H.
Seminar on conclusions from Mission 1. Dhaka 26 January 2006.
Air Quality Management Project, Dhaka, Bangladesh, 2006.
F 01/2006

Sivertsen, B. and Laupsa, H.
Seminar on air quality management. Dhaka 23 January 2006.
Air Quality Management Project, Dhaka, Bangladesh, 2006.
F 02/2006

Fløisand, I., Laupsa, H., Broday, D., Böhler, T., Holländer, W., Lützenkirchen, S., Housiadas, C., Stubos, T. and McInnes, H.
Calculations of personal exposure to particulate matter in urban areas. 28th NATO/CCMS International Technical Meeting on air pollution modelling and its application. Leipzig, May 15-19, 2006.
F 03/2006

Sivertsen, B.
Air pollution impacts from open air burning. Presented at the Waste Management 2006. 21-23 June 2006, Malta.
F 04/2006

Marsteen, L.
Seminar on network operation and QA/QC.
Air Quality Management Project, Dhaka, Bangladesh, 2006.
F 05/2006

Larsen, S.
Seminar on source apportionment methods. Air Quality Management Project, Dhaka, Bangladesh, 2006.
F 06/2006

Larsen, S.
Air Quality Management (AQM) Seminar; and proposed plan for the development of an AQM strategy for Bangladesh. Air Quality Management Project, Dhaka, Bangladesh, 2006.
F 07/2006

Larsen, S., Slørdal, L.H., Laupsa, H., McInnes, H. and Aas, W.
Impact of long range transported air pollution on exposure in Norwegian cities. Nordic Air Pollution Workshop 2006 March 6, 2006, Centre of Health and Society University of Copenhagen, Copenhagen.
F 08/2006

Laupsa, H., Piatek, R., Glodek, A. and Dudek, A.
The Krakow Integrated Project. Particulate matter: From toxic emissions to health effects. Krakow, 15-16 May 2006.
F 09/2006

Kupper, T., Berger, U., Huber, S. et al.
Occurrence and sources of organic pollutants in compost and digestate. Poster presentation. SETAC Europe 16th Annual Meeting, 7-11 May, 2006, The Hague, The Netherlands.
F 10/2006

Sivertsen, B.
Air quality management system for Hanoi; Monitoring, databases, emissions, models and organisation. Presentations at a seminar Hanoi 14 September 2006. Hanoi Urban Transport and Development Project. Air Quality Management Sub-component.
F 11/2006

Bartonova, A., Schmidbauer, N., Innset, B., Mattsson, J., Carlson, O.E., Ødegaard, A.T., Levy, F. and Bornehag, C.G.
Dampness in Building and Health (DBH) - Indoor air sampling of viable mould spores and volatile organic compounds (VOC/MVOC) in 400 Swedish homes. Healthy Buildings 2006, Lisboa, Portugal 4-8 June 2006.
F 12/2006

Hole, L.R. and Enghardt, M.
Future N deposition in Norway under different climate scenarios: MATCH model results. CLUE (NFR) prosjektmøte, Sem gjestegård, 25.-26. januar 2006.
F 13/2006

Hole, L.R.
Arctic haze, acidification and eutrophication in the Arctic: AMAP assessment report 2006. POMklim, Polarmiljøsentret, Tromsø, 14. februar 2006.
F 14/2006

Brevik, K.
Ongoing and planned activities at NILU related to the Long-Range Atmospheric Transport (LRAT) behaviour of POPs. AMAP mercury experts sub-group meeting, Burlington, Canada, 6-8 March 2006.
F 15/2006

Kreuger, J. and Kylin, H.
Atmospheric transport and deposition of pesticides in Sweden. The Warwick Conference on Pesticide Behaviour in Soils, Water and Air, Warwick, UK, 27-29 March 2006.
F 16/2006

Kylin, H. and Kallenborn, R.
Atmospheric Monitoring Network for Anthropogenic Pollution in Polar Regions (ATMOPOL). AMAP mercury experts sub-group meeting, Burlington, Canada, 6-8 March 2006.
F 17/2006

Kylin, H.
Uptake of POPs in vascular plants. AMAP mercury experts sub-group meeting, Burlington, Canada, 6-8 March 2006.
F 18/2006

Mariusson, E.
LC/MS-analysis of HBCD at NILU. Workshop in brominated flame retardants (BFR), Nordisk Metodikkomite for Næringsmidler, Uppsala, Sweden, 25-26 April 2006.
F 21/2006

Yttri, K.E.
EC/OC – monitoring within EMEP. TFMM 7th Meeting, Finnish Meteorological Institute, Helsinki, Finland, 10-12 May 2006.
F 22/2006

Hole, L.R., Christensen, J., Ginzburg, V.A., Quinn, P., Ruoho-Airola, T. and Stohl, A.
Arctic monitoring: update on the AMAP assessment report 2006. Acidifying pollutants, Arctic Haze and Acidification in the Arctic. TFMM 7th Meeting, Finnish Meteorological Institute, Helsinki, Finland, 10-12 May 2006.
F 23/2006

Tørseth, K.
Implementation of the EMEP monitoring strategy. TFMM 7th Meeting, Finnish Meteorological Institute, Helsinki, Finland, 10-12 May 2006.
F 24/2006

Aas, W. and Tørseth, K.
Synergies between EMEP and EUSAAR. EUSAAR Kick-off meeting, Clermont-Ferrand, France, 19-21 April 2006.
F 25/2006

Vik, A.F.
Presentation of networking activity NA5: Standardised

data protocol and central data base. EUSAAR Kick-off meeting, Clermont-Ferrand, France, 19-21 April 2006.
F 26/2006

Høiskar, B.A.K.
Joint research activity JRA3: Real-time data acquisition of advanced aerosol parameters. EUSAAR Kick-off meeting, Clermont-Ferrand, France, 19-21 April 2006.
F 27/2006

Brevik, K. and Li, Y.F.
Global and hemispheric emission inventories for POPs. 2nd meeting of the Task Force on Hemispheric Transport of Air Pollutants, Moscow, Russia, 6-8 July 2006.
F 29/2006

Werner, R., Stebel, K., Hansen, G.H., Gausa, M. and Hoppe, U.P.
Application of wavelet transform to determine characteristics of gravity waves observed by Lidar measurements. ALOMAR eARI user meeting, Engelberg, Switzerland, 20-23 May 2006.
F 30/2006

Tomasi, C., Stebel, K., Hansen, G., Myhre, C.L. et al.
Aerosols in polar regions. 2nd International Conference on Global Warming and the Next Ice Age, Santa Fe, New Mexico, July 17-19 2006.
F 31/2006

Hansen, G., Stebel, K., Baumgarten, G., Fiedler, J., Kivi, R., Kyrö, E., Fricke, K.H., Blum, U., Søvdø, A., Gausa, M., Maturilli, M.
Winter 2005-2006: A new northern hemisphere record winter with respect to stratospheric temperatures and Polar stratospheric cloud formation? European Geosciences Union General Assembly, Vienna, Austria, 2-7 April 2006.
F 33/2006

Brevik, K. and Schlabach, M.
On the sources of PCBs and PBDEs to Lake Mjøsa, Norway. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006.
F 34/2006

- Herzke, D., Berger, U., Huber, S. and Nygård, T. Perfluorinated organic compounds vs. persistent halogenated organic pollutants in European sheep and common eider from Norway. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006. F 35/2006
- Kallenborn, R., Sandanger, T. and Odland, J.O. Enantiomer signatures as evaluation tool for source elucidation of chiral environmental pollutants in human tissues. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006. F 36/2006
- Kallenborn, R., Christensen, G.N. and Evenset, A. Statistical evaluation, meteorological modelling and modern trace analysis as integrated tool for source elucidation of atmospheric long-range transport to Bjørnøya (Bear island). DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006. F 37/2006
- Mariusson, E. Neurotoxicity of organohalogen compounds. NOVA PhD course: Reproductive toxicology with emphasis on persistent endocrine disrupting chemicals in the environment, Norwegian School of Veterinary Science, Oslo, 10 November 2006. F 38/2006
- Hole, L.R., Aas, W. and de Wit, H. Regional differences in Norwegian nitrogen deposition trends. ICP waters / EuroLimpacs workshop, Bergen 9-10 October 2006. F 39/2006
- Breivik, K., Sweetman, A., Pacyna, J.M. and Jones, K.C. Towards a global historical emission inventory for selected PCB congeners – a mass balance approach. Lancaster Partners Meeting, Lancaster University, U.K., 24-26 October 2006. F 40/2006
- Kreuger, J. and Kylin, H. Atmospheric transport and deposition of pesticides in Sweden. 232nd ACS National Meeting, San Francisco, CA, 10-14 September 2006. F 42/2006
- Fagerli, H. and Hole, L.R. Ongoing Nr research in Norway. COST 729 meeting, Edinburgh, 7 December 2006. F 43/2006
- Larsen, S. Air4EU recommendations for integrated air quality assessment. Overview and examples. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. F 44/2006
- Dudek, A.V. Air quality mapping tool. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. F 45/2006
- Larsen, S. Recommendations structure. Air4EU workshop, Brussels, 30 June 2006. F 46/2006
- Denby, B. Spatial assessment of PM in urban areas. Air4EU workshop, Brussels, 30 June 2006. F 47/2006
- Walker, S.E. Air4EU case study Oslo II. Air4EU workshop, Brussels, 30 June 2006. F 48/2006
- Walker, S.E. Air4EU program tool SAM version 1.0. Air4EU workshop, Brussels, 30 June 2006. F 49/2006
- Denby, B. Air4EU Examples of uncertainty mapping. Air4EU workshop, Brussels, 30 June 2006. F 50/2006
- Myhre, C.L., Toledano, C., Stebel, K., Frioud, M., Yttri, K.E. and Johnsrud, M. Aerosol optical properties and distribution during the extreme Arctic haze event in spring 2006. NOSA Aerosol Symposium, Helsinki, 8-10 November 2006. F 51/2006
- Yttri, K.E., Aas, W., Bjerke, A., Ceburnis, D., Dye, C., Facchini, M.C., Forster, C., Hanssen, J.E., Hansson, H.C., Jennings, S.G., Maenhaut, W. and Tørseth, K. Elemental and organic carbon in PM₁₀: A one year measurements campaign within the European monitoring and evaluation programme EMEP. NOSA Aerosol Symposium, Helsinki, 8-10 November 2006. F 52/2006
- Yttri, K.E. Concentrations of particulate matter (PM₁₀, PM_{2.5}) in Norway. EMEP/TFMM Workshop on the PM Assessment Report, Paris, 29 November – 1 December 2006. F 53/2006
- Aas, W. EMEP intensive measurements of particulate matter. EMEP/TFMM Workshop on the PM Assessment Report, Paris, 29 November – 1 December 2006. F 54/2006
- Larsen, S. PM mass concentrations in Europe 2004, based on AirBase data. EMEP/TFMM Workshop on the PM Assessment Report, Paris, 29 November – 1 December 2006. F 55/2006
- Aas, W. and Tørseth, K. EMEP monitoring strategy, status and challenges with main focus on the EECCA region. UNECE Working Group on Environmental Monitoring and Assessment, Sixth session, Geneva, Switzerland, 12-14 June 2006. F 56/2006
- Aas, W. EMEP Monitoring programme. CAPACT (Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia) project meeting, Almaty, Kazakhstan 16-18 October 2006. F 57/2006
- Barber, J.L., Chaemfa, C., Lee, S., Berger, U., Huber, S., Jahnke, A. and Jones, K. Further studies of fluorinated alkyl compounds in UK air samples. SETAC North America, Montreal, Canada, 5-9 October 2006. F 59/2006
- Kylin, H. How do we organise and promote the collaboration between laboratories in industrialised and developing countries? The Second International Conference on Pesticide Use in Developing Countries: Environmental Fate, Effects and Public Health Implications. Organized by ANCAP in Collaboration with SETAC - AFRICA BRANCH. Arusha, Tanzania, 16-20 October 2006. F 60/2006
- Kylin, H. Uptake of airborne organic pollutants in Pine needles - consequences of short-term vs. long-term studies. The Second International Conference on Pesticide Use in Developing Countries: Environmental Fate, Effects and Public Health Implications. Organized by ANCAP in Collaboration with SETAC - AFRICA BRANCH. Arusha, Tanzania, 16-20 October 2006. F 61/2006
- Mwevura, H., Hellstrom, A., Kishimba, M.A. and Kylin, H. Sorption-desorption of chlorpyrifos in soil and sediments from the Rufiji Delta. The Second International Conference on Pesticide Use in Developing Countries: Environmental Fate, Effects and Public Health Implications. Organized by ANCAP in Collaboration with SETAC - AFRICA BRANCH. Arusha, Tanzania, 16-20 October 2006. F 62/2006
- Bouwman, H., Sereda, B., Meinhardt, R. and Kylin, H. Residues of DDT and pyrethroids in human milk from KwaZulu-Natal, South Africa. The Second International Conference on Pesticide Use in Developing Countries: Environmental Fate, Effects and Public Health Implications. Organized by ANCAP in Collaboration with SETAC - AFRICA BRANCH. Arusha, Tanzania, 16-20 October 2006. F 63/2006
- Kubica, K., Kubica, R., Pacyna, J.M., Pye, S. and Woodfield, M. Mercury emission from combustion of coal in S.C.I. The 3rd Int. Workshop on Mercury Emissions from Coal, MEC3, Katowice, Poland, 5-7 June, 2006. F 64/2006
- Leaner, J., Mason, R., Pacyna, J.M. and Zunkel, M. A re-evaluation of the emissions of mercury to the atmosphere from point and area sources within Southern Africa. The Atmospheric Chemistry at the Interfaces 2006 Symposium, Cape Town, South Africa, 17-23 September, 2006. F 65/2006
- Pacyna, J.M. Socio-economic aspects of nano-particles risk assessment. The ENERO Scientific Workshop on Nanomaterials and Nanoparticles Risk Assessment. Brussels, Belgium, 11 May, 2006. F 66/2006
- Pacyna, J.M., main Panelist in Panel Discussion. Way forward for the cooperation between North America and Norway in research and education on climate change. Transatlantic Science Week 2006 in Washington, DC on October 2-4, 2006, organized by the Carnegie Institution and the Ambassador of Norway. F 67/2006
- Pacyna, J.M., host Land ocean relationships in the coastal regions. Seminar on land ocean relationships in the coastal regions. Yale University, on October 27, 2006. F 68/2006
- Pacyna, J.M. IGBP/IHDP program LOICZ on Land-Ocean Interactions in the Coastal Zone. New York Academy of Sciences, New York, NY on October 30, 2006. Meeting on coastal zone management and research, presentation of the IGBP/IHDP program LOICZ on Land-Ocean Interactions in the Coastal Zone, discussion of the NY Harbor project. F 69/2006
- Pacyna, J.M. Mercury pollution and human health. The American Scandinavian Foundation, NY on October 31, 2006. F 70/2006
- Pacyna, J.M. Coastal zone management in the U.S. and globally. University of Rhode Island, Coastal Resources Center,

- Narragansett, RI on November 6, 2006 Meeting and presentation on coastal zone management in the U.S. and globally. F 71/2006
- Pacyna, J.M.**
Mercury emissions and control technologies. The U.S. Department of Energy, National Energy Technology Laboratory, Pittsburgh, PA on November 17, 2006. F 72/2006
- Pacyna, J.M.**
Mercury pollution: sources and atmospheric transport. Harvard University, Cambridge, MA on November 27, 2006. F 73/2006
- Pacyna, J.M.**
Pollution and human health. The U.S. Environmental Protection Agency (EPA), Region 2- New York, New York, NY on December 8, 2006 Meeting and presentation on management tools for air and water protection in large urban agglomerations. Impact of air pollution on human health. F 74/2006
- Pacyna, J.M.**
Mercury Pollution and Human Health. The U.S. Environmental Protection Agency (EPA), Headquarters in Washington on December 11, 2006. Professional meeting on contaminants: sources, transport in the environment, effects and emission control. Telephone conference with EPA staff around the country. F 75/2006
- Sivertsen, B. and Vo Thanh Dam**
Modelling air quality in Ho Chi Minh City, Vietnam. BAQ Better Air Quality 2006, Yogyakarta, Indonesia, 13-15 December 2006. F 76/2006
- Aspmo, K., Berg, T., Steffen, A., Brooks, S., Lindberg, S., Southworth, G. and Wibetoe, G.**
Mercury in and above an Arctic snowpack during atmospheric mercury depletion events (AMDEs). Eighth international conference on mercury as a global pollutant, Madison, Wisconsin, 6-11 August 2006. F 77/2006
- Orsolini, Y.**
Transport of minor constituents in the stratosphere, as observed by the MIPAS instrument aboard the ENVISAT satellite. Seminar at the University of Tokyo, Department of Earth and Planetary Sciences, 23 June 2006. F 78/2006
- Orsolini, Y.**
Ensemble GCM hindcasting of the North Atlantic Oscillation and the Icelandic-Aleutian Seesaw. Seminar at the Frontier Research Center for Global Change, Yokohama, Japan, 28 June 2006. F 79/2006
- Orsolini, Y.**
Stratospheric variability associated to tropospheric teleconnection. University of Bergen/ University of Washington summer school and workshop on multidecadal climate variability and teleconnection dynamics, Bergen, 20-21 September 2006. F 80/2006
- Orsolini, Y.**
The Icelandic-Aleutian Seesaw, ENSO and the stratospheric polar night jet in GCM winter hindcasts. European Meteorological Society Annual Meeting, Ljubjana, 4-6 September 2006. F 81/2006
- Trickl, T., Forster, C., James, P., Spichtinger-Rakowsky, N. and Stohl, A.**
On the pathways of Trans-Atlantic air-pollution transport. Joint IGAC/CACGP/ SOLAS/WMO Symposium: Atmospheric chemistry at the interfaces, The 9th scientific conference of the IGAC Project, Cape Town, South Africa, 17-23 September 2006. F 82/2006
- Forster, C., Stohl, A. and Seibert, P.**
Parameterization of convective transport in a Lagrangian particle dispersion model and its evaluation. EGU General Assembly, Vienna, Austria, 2 - 7 April 2006. F 83/2006
- Huntrieser, H., Schlager, H., Höller, H., Schumann, U., Betz, H.D., Boccippio, D., Brunner, D., Forster, C. and Stohl, A.**
Lightning-produced NO_x in tropical, subtropical and midlatitude thunderstorms: New insights from airborne and lightning observations. EGU General Assembly, Vienna, Austria, 2 - 7 April 2006. F 84/2006
- Minikin, A., Curtius, J., Weigel, R., Huntrieser, H., Schlager, H., Forster, C. and Stohl, A.**
Aerosol number concentrations in the upper troposphere over the Atlantic and Brazil and their relation to transport from continental sources and convective regions. EGU General Assembly, Vienna, Austria, 2 - 7 April 2006. F 85/2006
- Parrish, D.D., Stohl, A., Forster, C., Atlas, E.L., Goldan, P.D., Kuster, W.C., Goldstein, A.H., Millet, D.B. and Blake, D.R.**
Constraints on Cl concentrations in the polluted marine boundary layer provided by hydrocarbon concentration patterns. EGU General Assembly, Vienna, Austria, 2 - 7 April 2006. F 86/2006
- Hansen, G., Stebel, K., Meijer, Y., Swart, D., Claude, H., Steinbrecht, W., Neuber, R., Pal, S., Nakane, H., Keckhut, P., Bencherif, H., McDermid, I.S., Leblanc, T. and Strawbridge, K.**
Comparison of GOMOS high-resolution temperature profiles (H RTP) with data from selected EQUAL lidar and radiosonde sites. Third workshop on the Atmospheric Chemistry Validation of ENVISAT (ACVE-3), ESA-ESRIN, Frascati, 4-7 December 2006. F 87/2006
- Sivertsen, B.**
Monitoring air quality objectives and design. Clean Air for Asia training programme. Bangkok 29 May - 2 June 2006, Ho Chi Minh City October - November 2006. F 88/2006
- Sivertsen, B.**
Objectives of monitoring, data quality objectives, design og monitoring programmes. Clean Air for Asia training programme. Bangkok 29 May - 2 June 2006. F 89/2006
- Sivertsen, B.**
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- Sivertsen, B.**
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- Vogler, C., Hansen, G. and Brönniman, S.**
Historic total ozone data from Spitsbergen and Oxford. Poster presentation. International workshop on climate variability and extremes during the past 100 years, Gwatt, Switzerland, 24-26 July 2006. F 92/2006
- Hansen, G., Hole, L.R., Hermansen, O. and Pedersen, I.T.**
NILU's work on methane and related trace gases - from hemispheric transport to micro-scale processes. International workshop 'Climate impacts on carbon cycling and greenhouse gas balance in arctic terrestrial ecosystems', Svanhovd, 27-29 November 2006. F 93/2006
- Berger, U.**
Analysis of perfluorinated organic compounds - achievements of the PERFORCE project. 1st AQUAbase Workshop on analytical methods, Aachen, Germany, 18-19 January 2006. F 94/2006
- Berg, T., Aspmo, K., Ferrari, C., Munthe, J., Steffen, A. and Temme, C.**
The fate of atmospheric mercury at Svalbard. Eighth international conference on mercury as a global pollutant, Madison, Wisconsin, 6-11 August 2006. F 96/2006
- Steffen, A., Dastoor, A., Temme, C., Berg, T., Brooks, S., Lindberg, S. and Konoplev, A.**
A global view of atmospheric mercury from the Arctic. Poster presentation. Eighth international conference on mercury as a global pollutant, Madison, Wisconsin, 6-11 August 2006. F 97/2006
- Høiskar, B.A.K.**
AirQUIS Information - Training. Department for labour Inspection (DLI), Cyprus. 28 June -29 June 2006. F 99/2006
- Høiskar, B.A.K.**
Dissemination of Ambient Air Quality data in Norway - lessons learned and future plans. European Environmental Agency (EEA), Copenhagen, Denmark. Workshop, 8 March 2006. F 104/2006
- Larsen, S., Hagen, L.O., Slørdal, L.H. and Meland, S.**
Impact of traffic speed on near road PM concentrations. 8th Highway and Urban Environment Symposium, Kypros 12 - 14 juni 2006. F 106/2006
- Berg, P.**
Environmental research in Norway, organization and some results. Journada: Ecoinnovacion y sostenibilidad del territorio. Bilbao 9 February 2006. Aclima. F 107/2006
- Tørseth, K., Breivik, K. and Aas, W.**
Monitoring of POPs on global scale. EMEP TF HTAP Moscow 6-8 June 2006. F 108/2006
- Tørseth, K.**
Current EMEP activities of relevance for EANET. EANET STM7, Yangon, Myanmar, 1-3 August 2006. F 109/2006
- Tørseth, K.**
Dry deposition. EANET STM7, Yangon, Myanmar, 1-3 August 2006. F 110/2006
- Yttri, K.E., Aas, W. and Tørseth, K.**
Particulate matter - progress and plans for further work. 30th EMEP Steering Body 4-6 September, 2006. F 111/2006

- Tørseth, K.**
EMEP activities of relevance for EANET. EANET SAC7.AIT, Bangkok, 26 October, 2006. F 113/2006
- Gajewska, E., Olesen, F. and Prata, F.**
Land surface temperature validation with ground-truth for MSG. 2006 EUMETSAT Meteorological Satellite Conference. Marina Congress Center, Helsinki, Finland, 12–16 June 2006. F 114/2006
- Prata, F.**
Advances in infrared retrievals on volcanic emissions. Seminar, University of Bristol, 5 July, 2006. F 115/2006
- Prata, F.**
Volcanic gases: health, aviation and climate hazards. VulcanAus workshop, Brisbane, Australia, 3 August, 2006. F 116/2006
- Prata, F.**
Thermal infrared imaging: applications to aviation hazards. Workshop on Airborne Radiometric Detection of Aviation Hazards. August 14–15, 2006 NIA, Hampton, VA. F 117/2006
- Carn, S., Krotkov, N., Krueger, A., Yang, K., Hoff, R. and Prata, F.**
New insights into volcanic degassing from OMI and the A-train. Aura Science and Validation Team Meeting. NCAR Center Green Facility, Boulder, CO September 11–15, 2006. F 118/2006
- Prata, F.**
The climatological record of clear-sky longwave radiation at the Earth's surface: evidence for water vapour feedback? The 2nd International Symposium on Recent Advances in Quantitative Remote Sensing: RAQRS'II. Torrent, Spain 25–29 September 2006. F 119/2006
- Gajewska, E., Olesen, F. and Prata, F.**
Validation of Land Surface Temperatures (LSTs) derived from MSG/SEVIRI with the Evora, Portugal. The 2nd International Symposium on Recent Advances in Quantitative Remote Sensing: RAQRS'II. Torrent, Spain 25–29 September 2006. F 120/2006
- Kupper, T., Berger, U., Huber, S. et al.**
Organic pollutants in compost and digestate: occurrence, fate and impacts. International Conference ORBIT 2006 Biological Waste Management - From Local to Global, Weimar, Germany, 13–15 September 2006. F 121/2006
- Barrett, K.J.**
Deposition of pollutants to the North Sea/N.E. Atlantic in 2004. OSPAR Pollutant Inputs Workshop, London, 31 January - 2 February 2006. F 122/2006
- Barber, J.L., Berger, U., Huber, S., Breivik, K., Schlabach, M. et al.**
Fluorinated Chemical Research at Lancaster University. Poster presentation. Research Partners Meeting on Sources, Fate, Behaviour and Effects of Organic Chemicals at the Regional and Global Scale, Lancaster University, 24–26 October 2006, Lancaster, UK. F 123/2006
- Brändli, R.C., Berger, U., Huber, S. et al.**
Organic pollutants in source-separated compost. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21–25 August 2006. F 124/2006
- Jahnke, A., Berger, U., Huber, S., Kylin, H. and Temme, C.**
Using solid-phase extraction cartridges for sampling of volatile polyfluorinated alkyl substances (PFAS) in indoor air. Dioxin 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, 21–25 August 2006. F 125/2006
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- Dahlin, E.**
Assessing the museum environment. Final workshop for the MASTER project, London, 10–11 January 2006. PP 01/2006
- Hole, L.R. and de Wit, H.**
A regional perspective on main drivers of N deposition. NitroEurope (NEU) Kick Off Meeting, Garmisch Partenkirchen, Germany, 13–19 March 2006. PP 02/2006
- Svendby, T.M., Myhre, C.L. and Kahnert, M.**
Sensitivity studies of Arctic ice clouds. European Geophysical Union, General Assembly, Vienna, 2–7 April 2006. PP 03/2006
- Horálek, J., Denby, B., Kurfürst, P., de Smet, P., de Leeuw, F. and Brabec, M.**
Interpolation methods for European scale air quality mapping: application to European population exposure estimates for PM₁₀. COST 633 Workshop on 'Similarities and differences in airborne particulate matter, exposure and health effects over Europe', April 3–5, 2006, Vienna, Austria. PP 04/2006
- Floisand, I., McInnes, H., Broday, D., Lützenkirchen, S., Holländer, W. and Bartonova, A.**
Urban exposure of children to particles - model calculations. COST 633 Conference: Similarities and differences in airborne particulate matter, exposure and health effects over Europe, Vienna, 3–5 April 2006. PP 05/2006
- Orsolini, Y.J., Karpechko, A. and Nikulin, G.**
Climate patterns and the forcing of the polar stratosphere in winter. European Geophysical Union, General Assembly, Vienna, 2–7 April 2006. PP 06/2006
- Orsolini, Y.J., Lahož, W.A. and Geer, A.J.**
Transport studies in the summer stratosphere 2003 using MIPAS observations. Atmospheric Science Conference, ESA ESRIN, Frascati, 08–12 May 2006. PP 07/2006
- Bartonova, A., Sharma, M. and Katiyar, S.K.**
Domestic energy use in Kanpur, UP, India: Impact of PM on women and children. Power, poverty and sustainability. The role of impact assessment. 26th Annual Conference of International Association for Impact Assessment, 23–26 May 2006, Stavanger Forum, Stavanger. PP 08/2006
- McInnes, H., Jablonska, H.T.B., Inset, B. and Laupsa, H.**
Tools for assessing emissions and urban air quality abatement studies. 8th Highway and Urban Environment Symposium, 12–14 June 2006, Nicosia, Cyprus. PP 10/2006
- Floisand, I., Broday, D., McInnes, H., Laupsa, H., Holländer, W. and Flickstein, B.**
Modelling personal exposure to particulate matter in the Haifa Bay area. 8th Highway and Urban Environment Symposium, 12–14 June 2006, Nicosia, Cyprus. PP 11/2006
- Herzke, D., Berger, U., Huber, S. and Nygård, T.**
Bioaccumulation of "new" and "old" POPs in a marine ecosystem; local vs. remote pollution; Norway. SETAC Europe 16th Annual Meeting, 7–11 May, 2006, The Hague, The Netherlands. PP 12/2006
- Berg, T., Aspmo, K. and Steinnes, E.**
Elevated concentrations of mercury in mosses growing at the Arctic coast of Norway - a phenomenon caused by Arctic mercury depletion events? Eighth international conference on mercury as a global pollutant, Madison, Wisconsin, 6–11 August 2006. PP 13/2006
- Andersen, I.S., Haugstad, K., Fonnum, F. and Mariussen, E.**
Combinatorial effects of brominated flame retardants, polychlorinated biphenyls and methylmercury on neurotransmitter uptake in synaptosomes and synaptic vesicles in vitro. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21–25 August 2006. PP 14/2006
- Steck, T., Hansen, G., Stebel, K. et al.**
Validation of IMK ozone profiles from MIPAS-Envisat. Atmospheric science conference, ESA-ESRIN, Frascati, Italy, 8–12 May 2006. PP 15/2006
- Myhre, C.L., Stebel, K., Toledano, C., Schaugh, J., de Frutos, A.M., Cachorro, V.E. and Hansen, G.**
Aerosol properties in the European Arctic region. European Geophysical Union, General Assembly, Vienna, 2–7 April 2006. PP 16/2006
- Stohl, A., Burkhart, J.F., Forster, C., Lunder, C., Stebel, K., Tørseth, K., Yttri, K.E. et al.**
Pan-Arctic enhancements of light absorbing aerosol concentrations due to North American boreal forest fires during summer 2004. Joint IGAC/CACGP/SOLAS/WMO Symposium: Atmospheric chemistry at the interfaces, The 9th scientific conference of the IGAC Project, Cape Town, South Africa, 17–23 September 2006. PP 17/2006
- Breivik, K., Wania, F., Muir, D.C.G., Alae, M., Backus, S. and Pacepavicius, G.**
On the long-range atmospheric transport behavior of Decabromodiphenyl ether (BDE-209). SETAC North America, Montreal, Canada, 5–9 October 2006. PP 18/2006
- Hole, L.R., De Wit, H. and Aas, W.**
Regional differences in nitrogen deposition trends. Joint CACGP/IGAC/WMO Conference on Atmospheric Chemistry at the Interfaces. Cape Town 17–23 September 2006. PP 19/2006
- Hole, L.R. and Christensen, J.**
Trends in nitrogen and sulphur compounds in the Arctic: past and future. Joint CACGP/IGAC/WMO Conference on Atmospheric Chemistry at the Interfaces. Cape Town 17–23 September 2006. PP 20/2006
- Aas, W., Forster, C., Shao, M., Larssen, T., Zhao, D., Xiang, R. and Lei, D.**
Transport of air pollutants to background sites in South China. Joint IGAC/CACGP/SOLAS/WMO Symposium: Atmospheric chemistry at the interfaces, The 9th scientific conference of the IGAC Project, Cape Town, South Africa, 17–23 September 2006.

- PP 21/2006
 Dye, C., Remberger, M., Kaj, L. and Schlabach, M.
 Determination of tetracyclines in sewage sludge using high performance liquid chromatography combined with time of flight mass spectrometry. 2nd International workshop on liquid chromatography-tandem mass spectrometry for screening and trace level quantitation in environmental and food samples. Barcelona, 18-19 September 2006. PP 22/2006
- Tørseth, K., Aas, W., Fjæraa, A.M., Hanssen, J.E. and Stohl, A.
 Long-term sulphur observations in the Norwegian Arctic. Joint IGAC/CACGP/SOLAS/WMO Symposium: Atmospheric chemistry at the interfaces. The 9th scientific conference of the IGAC Project, Cape Town, South Africa, 17-23 September 2006. PP 23/2006
- Haukås, M., Gabrielsen, G.W., Hop, H., Gulliksen, B. and Berger, U.
 Perfluorooctane sulfonate (PFOS) and related compounds in a Norwegian arctic marine food chain. Nordic Marine Sciences Conference, Oslo 1-3 November 2006. PP 24/2006
- Heimstad, E.S., Dahl-Hansen, G., Enge, E.K. and Schlabach, M.
 Levels of dioxins in soil and freshwater fish from northern Norway. Dioxin 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, 21-25 August 2006. PP 25/2006
- Bouwman, H., Sereda, B., Meinhardt, R. and Kylin, H.
 DDT and pyrethroid residues in human breast milk from Kwazulu-Natal, South Africa. Dioxin 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, 21-25 August 2006. PP 26/2006
- Denby, B.
 Basic data assimilation methods: Application to the urban scale. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. PP 27/2006
- Walker, S.E.
 Case study Oslo II: Data assimilation in open road line source modelling. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. PP 28/2006
- Walker, S.E., Schaap, M. and Slini, L.
 Cross cutting issue 5: Data assimilation. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. PP 29/2006
- Dudek, A.V., Logna, R. and Denby, B.
 The Air4EU mapping tool. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. PP 30/2006
- Denby, B.
 Basic data assimilation methods: Application to the European scale. Air4EU Final Conference. Air quality assessment for Europe. From local to continental scale, Prague, 10 November 2006. PP 31/2006
- Glodek, A., Piatek, R. and Laupsa, H.
 Experiences with using an integrated air quality management tool, Air-QUIS, for air quality modeling and exposure assessment in urban areas in Poland. Presented at V International Research Conference: Air Protection in Theory and Applications, Zakopane, Poland, 19-21 October 2006. PP 32/2006
- Berger, U. and Herzke, D.
 Per- and polyfluorinated alkyl substances (PFAS) extracted from textile samples. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006. PP 33/2006
- Laursen, I.M., Herzke, D. and Rahbek, C.
 Polybrominated diphenyl ethers (PBDE) in Danish Red Kites. DIOXIN 2006, 26th International Symposium on Halogenated Persistent Organic Pollutants, Oslo, Norway, 21-25 August 2006. PP 34/2006
- Stebel, K., Hansen, G., Blum, U., et al.
 Validation of the GOMOS high-resolution temperature product (H RTP) using lidar. Atmospheric Science Conference, ESA ESRIN, Frascati, Italy, 8-12 May 2006. PP 35/2006
- Hansen, G., Stebel, K., Kyrö, E. et al.
 The Nordkalotten Satellite Evaluation & Co-operation Network (NorSEN). Atmospheric science conference, ESA ESRIN, Frascati, Italy, 8-12 May 2006. PP 36/2006
- Werner, R., Valev, D., Atanasov, A., Kostadinov, I., Petkov, B., Giovanelli, G., Stebel, K., Petrotoli, A., Palazzi, E. and Gausa, M.
 Ozone minihole observation over the Balkan Peninsula in March 2003. 36th COSPAR Scientific Assembly, Beijing, China, 16-23 July 2006. PP 37/2006
- Goutail, F., Lefèvre, F., Pommereau, J.P., van Roozendaal, M., Chipperfield, M., Feng, W., Kyrö, E., Andersen, S.B., Stebel, K. and Dorokhov, V.
 Total ozone loss during the 2005/2006 Arctic winter and comparison to previous years. European Geosciences Union General Assembly, Vienna, Austria, 2-7 April 2006. PP 38/2006
- Aspmo, K., Temme, C., Berg, T., Ferrari, C., Gauchard, P.A., Fain, X. and Wibetoe, G.
 The aftermath of AMDEs - Mercury in the atmosphere, snow and melt water ponds in the North Atlantic ocean during Arctic summer. Eighth international conference on mercury as a global pollutant, Madison, Wisconsin, 6-11 August 2006. PP 40/2006
- Orsolini, Y., Lahoz, W.A. and Geer, A.J.
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- 3), ESA-ESRIN, Frascati, 4-7 December 2006. PP 41/2006
- Hansen, G., Vogler, C., Brönnimann, S. and Engelsen, O.
 Latitude dependent influence of climate teleconnection patterns on total ozone and UV radiation levels in Northern Europe. International workshop on climate variability and extremes during the past 100 years, Gwatt, Switzerland, 24-26 July 2006. PP 42/2006

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