PROGRAMME OF SESSIONS

MONDAY, 23 AUGUST 2004

Dynamics of Arctic tidewater glaciers

J. Oerlemans and F.M. Nick: A minimal model of a calving glacier

Andreas Kääb, Bernard Lefauconnier and Kjetil Melvold: Flow field of Kronebreen, Svalbard, using repeated Landsat7 and ASTER data

Adrian Luckman and Tavi Murray: Dynamic fluctuation of Kronebreen, Svalbard over ten years measured by ERS SAR feature tracking and its relationship to the surge of Monacobreen

Zbigniew Perski, Jacek Jania and Manfred Stober: Flow velocity of two tidewater glaciers in NW Spitsbergen surveyed by GPS and SAR Interferometry

J. Jania, Z. Perski, D. Puczko, P. Glowacki, A. Balut and A. Vieli: Temporal and spatial variations of the flow velocity of Spitsbergen tidewater glaciers

Arctic glacier dynamics

Guðfinna Aðalgeirsdóttir, Helgi Björnsson, Finnur Pálsson and Eyjólfur Magnússon: Analyses of two surging outlet glaciers of Vatnajökull ice cap, Iceland

Anna Nelson, Ian Willis and Colm O'Cofaigh: Evidence for both subglacial sediment deformation and sliding beneath the surge-type Brúarjökull, Iceland

Anne-Marie Nuttall and Richard Hodgkins: Long-term dynamics and mass balance of Finsterwalderbreen, a Svalbard surge-type glacier

David Rippin, Ian Willis and Neil Arnold: Annual and seasonal patterns of velocity and strain across the tongue of the polythermal glacier Midre Lovenbreen, Svalbard

Michael J. Hambrey, Tavi Murray, Neil F. Glasser, Alun Hubbard, Bryn Hubbard, Graham Stuart and Siri Hansen: Structure and changing dynamics of a polythermal valley glacier on a centennial time-scale: midre Lovénbreen, Svalbard

Miriam Jackson, Ian A. Brown and Hallgeir Elvehøy: Velocity measurements on Engabreen, northern Norway

Rune V. Engeset, Thomas Schuler and Miriam Jackson: Jökulhlaup at Blåmannsisen, northern Norway: the first event and future risk

Geir Vatne: Step-pool sequences in englacial meltwater channels, Austre Brøggerbreen, Svalbard

Frank Paul and Andreas Kääb: Challenges for glacier inventorying from Landsat ETM+ in the Canadian Arctic: Cumberland Peninsula, Baffin Island

Greenland ice dynamics

Waleed Abdalati, James Golder, Serdar Manizade, Robert Thomas, William Krabill and Bea Csatho: Jakobshavn Isbrae flow-rate increases during 2001, 2002, and 2003

Leigh Stearns, Gordon Hamilton and Niels Reeh: A 35-year record of ice dynamics on a large East Greenland outlet glacier: Daugård-Jensen Gletscher

Steffen Podlech, Christoph Mayer, Carl Egede Bøggild and Dorthe Dahl-Jensen: The Qagssimiut Lobe, a combined field and model study

Stefan W. Vogel, Beáta M. Csathó and C.J. van der Veen: Subglacial conditions beneath the Greenland ice sheet – linkage between subglacial geology and ice dynamics I: Basal melt and sedimentary bed strength

David Chandler, Richard Waller and William Adam: Basal ice motion and deformation at the ice sheet margin, West Greenland

Mark Fahnestock: Basal sliding of the Greenland ice sheet constrained by interpretation of internal layering in ice penetrating radar profiles

TUESDAY, 24 AUGUST 2004

Greenland mass balance: observations

H. Jay Zwally, Anita C. Brenner, Helen Cornejo, Mario Giovinetto, Jack L. Saba and Donghui Yi: Greenland ice-sheet mass balance from satellite radar altimetry

R. Thomas, E. Frederick, W. Krabill, S. Manizade, C. Martin and A. Mason: Elevation changes on the Greenland ice sheet from comparison of aircraft and ICESAT laser altimeter data

W.B. Krabill, R.H. Thomas, C.F. Martin and R.N. Swift: Recent observations of increased thinning of the Greenland ice sheet measured by aircraft GPS and laser altimetry

K.S. Khvorostovsky, L.P. Bobylev and O.M. Johannessen: Surface elevation variations of Greenland ice sheet derived from satellite altimeter data and their relation to the climate parameters

Donghui Yi, H. Jay Zwally and Xiaoli Sun: ICESat/GLAS Measurement of Greenland ice sheet surface slope and roughness

Christopher A. Shuman and Mark A. Fahnestock: Glaciology from ICESat – NE Greenland ice stream

Wouter Greuell and Johannes Oerlemans: Estimation of the surface mass balance along the k-transect (Greenland ice sheet) from satellite-derived albedos

Andrea Taurisano and Carl Egede Bøggild: Interpretation of over a half century of glacier elevation changes in West Greenland

Philippe Huybrechts, Jeff Ridley, Thomas Toniazzo and Jonathan Gregory: On the (ir-)reversibility of Greenland ice sheet melting in a warming climate

Abha Sood: Fresh water discharge from Greenland using regional climate simulations

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Greenland mass balance - modelling

Niels Reeh, David A. Fisher, Roy M. Koerner and Henrik B. Clausen: An empirical firn-densification model comprising ice lenses

J.E. Box: Greenland ice sheet surface mass balance variability: 1991–2003

E. Hanna, P. Huybrechts, J. McConnell, J. Cappelen, K. Steffen and A. Stephens: Current state and variability of surface mass balance of Greenland ice sheet, and links with climate

J. Jania, Yu. Macheret, F. Navarro, A. Glazovsky, E. Vasilenko, J. Lapazaran, P. Glowacki, K. Migala, A. Balut and B.A. Piwowar: Temporal changes in radiophysical properties in a polythermal glacier during the ablation season

H.K. Guy, H. Calluy, H. Björnsson, J.W. Greuell and J. Oerlemans: Estimating the mass balance of Vatnajökull from NOAA-AVHRR imagery

Poster session

Hernán De Angelis and Johan Kleman: Paleo-ice streams in the northern Keewatin sector of the Laurentide ice-sheet

Richard R. Forster, Andrew J.L. Ford and Ronald Bruhn: Ice surface velocities and elevation changes on the Bering Glacier, Alaska, USA

J.A. Dowdeswell, T.J. Benham and M.J. Sharp: On the marine-terminating outlet glaciers draining the Prince of Wales and Agassiz ice caps, Ellesmere Island, Arctic Canada

Christian Kronborg, Nicolaj Krog Larsen, Ole Bjørslev-Nielsen, Niels Tvis Knudsen and Jacob Clement Yde: The quantity and possible mechanisms of subglacial entrained debris during the 1995–98 Kuannersuit Glacier surge, West Greenland

Jacob Clement Yde, Niels Tvis Knudsen, Nicolaj Krog Larsen, Christian Kronborg, Ole Bjørslev-Nielsen, Jan Heinemeier and Jesper Olsen: A thrust-moraine composed of debris-rich naled and glaciofluvial sediments: evidence of rapid drainage during the termination of the Kuannersuit Glacier surge, West Greenland?

Tavi Murray, Adrian Luckman, Stuart Barr, Hester Jiskoot and Christopher J. Crauford: Dynamic thinning of two outlet glaciers in Arctic East Greenland

Graham Stuart, Tavi Murray, Alex Brisbourne, Peter Styles and Sam Toon: Acoustic emissions from a surging glacier: Bakaninbreen, Svalbard

M. Moskalevsky, P. Nakalov, N. Osokin and V. Zakharov: Changes in the surface elevation, thickness an volume of surging Fridtjovbreen Glacier (Svalbard) in the last century

Jim Hedfors, Veijo Pohjola, Ann-Marie Berggren, P. Kuipers-Munneke, Ola Brandt and Elisabeth Isaksson: Investigations of temporal changes in the ice dynamics on Nordenskjöldbreen, Svalbard

F. Navarro, A.F. Glazovsky, Yu. Ya. Macheret, E.V. Vasilenko, M.I. Corcuera and M.L. Cuadrado: Structure, dynamics and ice volume changes of Aldegondabreen (Spitsbergen) during 1936–90

Yuriy M. Kononov, Maria D. Ananicheva and Ian C. Willis: The millennium dynamics of Polar Ural glaciers by high resolution reconstruction of glacier mass balance

Elena V. Shevnina and Lev M. Savatyugin: Flow dynamics of Academiya Nauk ice cap, Severnaya Zemlya arhipelago

Addy Pope, Adrian Luckman and Tavi Murray: Improving the reliability of photogrammetrically-derived elevation models of high Arctic glaciers using multiple failure warning models

W.A. Sneed and Gordon S. Hamilton: Data fusion using ASTER satellite imagery to map snow and ice facies on glaciers in Svalbard

Bruce Raup, Siri Jodha and Singh Khalsa: Comparative image analysis to ensure data quality in the Global Land Ice Measurements from Space (GLIMS) glacier database

Fiona Cawkwell, David Burgess and Martin Sharp: Calibration and validation of the CryoSat radar altimeter: field studies on the Devon Ice Cap, 2004

E.K. Dowdeswell and J.A. Dowdeswell: Recent changes in the dimensions of the glaciers on Bylot Island, Arctic Canada

K.M. McKinzey, J.F. Orwin and T. Bradwell: A revised little ice age chronology of key Vatnajökull outlet glaciers, southeast Iceland

Keith A. Brugger, Kurt A. Refsnider and Matthew F. Whitehill: Variation in glacier length and ice volume of Rabots Glaciär in response to climate change, 1910–2003

Wieslaw Ziaja: Response of Grumantbreen, Håbergbreen and Dryadbreen glaciers (central-west Nordenskiöld Land, Spitsbergen) to the climate warming after the Little Ice Age

Elżbieta Bukowska-Jania: Specific function of the glacier system in migration of calcium carbonate in Svalbard (as an example)

Andy Hodson, Jack Kohler and Moana Brinkhaus: Water and energy balance of a maritime High Arctic glacier: multi-year observations from Midre Lovenbreen, Svalbard

Sergey M. Arkchipov, Maria D. Ananicheva, Hans W. Hubberten and Boris G. Vanshtein: Geochemistry of the nival-glacial complexes of Nordensheld Land, Svalbard

A.S. Savvichev, I.I. Rusanov, M.Yu. Kochevalina, A.Yu. Lein and M.O. Leibman: Microbiological studies of the water-snow-ice complexes in the area of Shokalsky glacier (Novaya Zemlya archipelago)

WEDNESDAY, 25 AUGUST 2004

Remote sensing of Arctic glaciers and ice caps

Max König, Jan-Gunnar Winther and Jack Kohler: Firn area and mass-balance monitoring of Svalbard glaciers with Synthetic Aperture Radar (SAR) satellite images.

Ian A. Brown, Per Klingbjer and Andy Dean: The effect of mass balance changes on SAR backscatter: a case study from two Arctic glaciers

Kjell-Arild Høgda, Thomas Geist, Miriam Jackson, Hallgeir Elvehøy and Johann Stötter: Comparison of digital elevation models from airborne SAR technology and airborne laser scanner technology at Engabreen, Svartisen, Norway

Thomas Geist, Hallgeir Elvehøy, Miriam Jackson and Johann Stötter: Using airborne laser scanning technology for evaluating volume changes at Engabreen, Svartisen, Norway

J.O. Hagen, U. Nixdorf, J-G.Winther, T. Eiken, E. Loe, K. Melvold and A. Taurisano: Cryosat calibration and validation investigations on Austfonna, Svalbard

Jonathan Bamber, William Krabill, Vivienne Raper, Julian A. Dowdeswell and J. Oerlemans: Interpretation of elevation changes on Svalbard glaciers and ice caps from airborne LIDAR data

Gordon Hamilton, Elisabeth Isaksson, Jack Kohler and William Sneed: Ice cap variations and climate change in northeast Svalbard

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THURSDAY, 26 AUGUST 2004

Arctic glacier mass balance: modelling

Mattias de Woul and Regine Hock: Static mass balance sensitivity of Arctic glaciers and ice caps using a degree-day approach

Roger J. Braithwaite: Mass balance characteristics of Arctic glaciers

Kjetil Melvold, Wouter Greuell and Jon Ove Hagen: Glacier mass balance of glaciers in the Kongsfjorden area, northwest Spitsbergen modeled with an energy balance model

J. Oerlemans, R.P. Bassford, W. Chapman, J.A. Dowdeswell, A.F. Glazovsky, J-O. Hagen, K. Melvold, M. de Ruyter de Wildt and R.S.W. van de Wal: Estimating the runoff from Arctic glaciers in the next hundred years

Richard Bintanja, Roderik S. W. van de Wal and Johannes Oerlemans: A one million year record of Northern Hemispheric temperature, ice sheet volume and global sea level

Arctic glacier mass balance: Svalbard

Mariusz Grabiec: Relations between topographical conditions and distribution of the snow accumulation on the selected glaciers of Svalbard

Christian Jaedicke and Peter Gauer: The influence of drifting snow on the location of glaciers on western Spitsbergen

Richard Hodgkins, Richard Cooper, Jemma Wadham and Martyn Tranter: Topographic controls on the spatial distribution of winter accumulation at a high-arctic glacier (Finsterwalderbreen, Svalbard)

Jack Kohler and Ola Brandt: Revisiting the mass balance record on Austre Brøggerbreen and Midre Lovénbreen, Svalbard

Sylwia Nowak: Physical properties of the glacier surface and the albedo. Waldemarbreen, Svalbard

Mariusz Grabiec: The attempt of estimation of the snow accumulation on the glaciers of Svalbard basing upon meteorological data from the coastal stations

Jon Ove Hagen, Trond Eiken, Jack Kohler and Kjetil Melvold: Geometry changes on Svalbard glaciers – mass balance or dynamic response?

T. Schuler, K. Melvold and J.O. Hagen: Assessing the future evolution of meltwater intrusions into a mine below Gruvefonna, Svalbard

Andrew Wright, Jemma Wadham, Martin Siegert, Adrian Luckman and Jack Kohler: Modelling the impact of meltwater re-freezing and superimposed ice formation on the mass balance of a High Arctic glacier

M.O. Leibman, S.M. Arkhipov, D.D. Perednya, A.S. Savvichev, B.G. Vanshtein and H-W. Hubberten: Geochemical properties of the water–snow–ice complexes in the area of Shokalsky glacier, Novaya Zemlya archipelago

Poster session

Takateru Yamagishi, Ayako Abe-Ouchi, Fuyuki Saito, Tomonori Segawa and Teruyuki Nishimura: Reevaluation of paleo-accumulation parameterization over northern hemisphere ice sheet during ice age examined with a high resolution atmospheric GCM and a 3D-ice sheet model

Ola Brandt, Helgi Björnsson and Yngvar Gjessing: Glacier net balance rates derived from internal tephra layers in the ice caps Myrdalsjökull and Vatnajökul, Iceland

H. Björnsson, S. Gudmundsson and F. Pálsson: Katabatic winds on Vatnajökull, Iceland, generated by the lateral temperature gradients

J. Kohler and F. Obleitner: Regional patterns of meteorological variables in the Kongsvegen area, Svalbard

Cecilie Rolstad and Johannes Oerlemans: Turbulent exchange coefficients over ice calculated from automatic weather station data at sites in Iceland, Switzerland, and West Greenland

Matthias Braun, Thomas Schuler, Ian Brown, Regine Hock and Miriam Jackson: Supporting glacier mass balance modelling by EO-based snow facies maps – a case study from Engabreen, Northern Norway

Vivienne Raper, Jonathan Bamber and William Krabill: Anomalous elevation change on a large Arctic ice cap

Christoph Mayer and Thomas Schuler: Breaching of an ice-dam at Qorlortossup tasia, South Greenland

Liss M. Andreassen, Hallgeir Elvehøy, Bjarne Kjøllmoen, Rune V. Engeset and Nils Haakensen: Glacier mass balance and front variation in Norway

Peter Jansson and Hans W. Linderholm: Constraints on latitudinal climate forcing of mass balances of Scandinavian glaciers from combined glacier and tree-ring studies

Keiko Konya, Regine Hock and Renji Naruse: Distributed melt-rate calculations based on the energy balance over Storglaciären, Sweden

R.S.W. van de Wal, W. Greuell, M.R. van den Broeke, C.H. Reijmer and J. Oerlemans: Mass balance measurements along a transect in West-Greenland over the period 1990–2003

Maria Plougmann Hag, Carl Egede Bøggild, Håkon Gjessing Karlsen, Jens Asger Andersen and Jørgen Bille-Hansen: Runoff and climate trend at the ice-sheet margin in West Greenland

Saito Fuyuki and Ayako Abe-Ouchi: Dependence of simulation and sensitivity of Greenland ice sheet to numerical procedures for ice sheet dynamics

Marion Bougamont and Jonathan Bamber: Testing a Greenland ice sheet surface mass balance model designed for coupling with a GCM

I.K. Seierstad, J. Olsen, B.M. Vinther and S.J. Johnsen: The timespan of the Bølling-Allerød period in the GRIP ice core

Daniel Steinhage, Olaf Eisen and Henrik Brink Clausen: Regional and temporal variation of accumulation around NGRIP derived from ground based ice-penetrating radar

Atsushi Miyamoto, Hitoshi Shoji, Akira Hori, Takeo Hondoh, Henrik B. Clausen and Okitsugu Watanabe: Ice fabrics evolution processes under various deformation conditions revealed by X-ray crystallographic analyses

L. Karlöf, T.A. Øigård, F. Godtliebsen, M. Kaczmarska and H. Fischer: Finding significant peaks in ice core records

Elisabeth Isaksson, Teija Kekonen, John Moore and Robert Mulvaney: The methanesulphonic acid (MSA) record in a Svalbard ice core

Teija Kekonen, John Moore, Paavo Perämäki, Robert Mulvaney, Elisabeth Isaksson, Veijo Pohjola and Roderik S. W. van de Wal: Marine and terrestrial cations in the Lomonosovfonna ice core, Svalbard

T. Martma, V.A. Pohjola, E. Isaksson, J. Kohler, J.C. Moore and B. Sjögren: Spatial distribution and the temporal variability of $\delta^{18}O$ over central Spitsbergen, as studied from shallow ice cores, snow pits and coastal station records

Per Holmlund and Rickard Pettersson: An analysis of mass changes of Storglaciären over the last 58 years

D. Fritzsche, R. Schütt, H. Meyer, H. Miller, F. Wilhelms, F. and L.M. Savatyugin: Late Holocene ice core record from Akademii Nauk ice cap, Severnaya Zemlya, Russian Arctic

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Karl J. Kreutz, Cameron P. Wake, Kaplan Yalcin, David Fisher and Douglas S. Introne: Meteorological controls on summer fresh snow isotope values, Eclipse Icefield, St Elias Mountains

Kunio Rikiishi, Hideaki Ohtake and Yurika Katagiri: The role of atmospheric circulation in the growth of sea ice fields in marginal seas around the Arctic Ocean

Kunio Rikiishi and Shinya Takatsuji: Interannual variation in the sea ice extent in the Sea of Okhotsk with special reference to its negative correlation with the sea ice extent in the Bering Sea

FRIDAY, 27 AUGUST 2004

Mass balance of Arctic glaciers – Scandinavia

Per Holmlund, Peter Jansson and Rickard Pettersson: Ice coring on a polythermal glacier in Northern Sweden

Thomas Schuler, Regine Hock, Miriam Jackson, Hallgeir Elvehøy, Matthias Braun, Ian Brown and Jon-Ove Hagen: Distributed mass balance and climate sensitivity modelling of Engabreen, Norway

L.A. Rasmussen and H. Conway: Influence of upper-air conditions on glaciers in Scandinavia

Jörn Lippert, Maria Wastl, Johann Stötter, Andrew P. Moran, Thomas Geist and Clemens Geitner: Mass balance measuring and modelling on three glaciers in Northern Iceland

Mass balance of Arctic glaciers – North America

Roy M. Koerner: Mass Balance of glaciers in the Queen Elizabeth Islands, Nunavut Canada

Carsten Braun, D.R. Hardy and R.S. Bradley: Mass balance changes in the Canadian high arctic: ward hunt ice shelf and Hazen plateau ice caps

Fiona Cawkwell, Martin Sharp and Luke Copland: Environmental drivers of glaciological change on the Manson Icefield, Ellesmere Island, Nunavut, Canada

Matt Nolan, Bernhard Rabus and Larry Hinzman: Volume change of McCall Glacier, Arctic Alaska, from 1956 to 2003

Arctic ice cores

Bruce F. Molnia, Richard S. Williams, Jr. and Jane G. Ferrigno: Alaska – a review and analysis of the 14 glacierized regions

Dorthe Dahl-Jensen: Climate variations deduced from temperature measurements in deep boreholes on the Greenland and Antarctic ice sheets

Ralf Greve: Relation of measured basal temperatures and the spatial distribution of the geothermal heat flux for the Greenland ice sheet

Aslak Grinsted, John Moore, Veijo Pohjola and Teija Kekkonen: An 800 year melt proxy record from Lomonosovfonna, Svalbard

I. Baker, D. Iliescu, R. Obbard, H. Chang, B. Bostick and C.P. Daghlian: Characterization of ice cores using scanning electron microscopy

Elisabeth Isaksson, Jack Kohler, Veijo Pohjola, John Moore, Makoto Igarashi, Lars Karlöf, Tõnu Martma, Harro Meijer, Hideaki Motoyama, Rein Vaikmäe and Roderik S.W. van de Wal: Using two ice core $\delta^{18}O$ records from Svalbard to illustrate climate and sea ice variability over the last 400 years

John Moore and Teija Kekonena: Interpreting the sulphate record of the Lomonosovfonna ice core, Svalbard: source inventories and post depositional processes

Takahiro Segawa, Shiro Kohshima, Makoto Igarashi, Shuhei Takahashi, Matt Nolan and Yoshiyuki Fujii: Ice-core dating with snow algae and pollens in McCall Glacier, Brooks Range, Alaska

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