



Bram Bregman

bram.bregman@gmail.com

Publicaties

REPORTS, ASSESSMENTS, POLICY RESEARCH DOCUMENTS

Nationaal Waterplan, Kennisagenda (in Dutch), 2010.

Monna, W.A.A., H.M. van Aken, A. Apituley, R. Boers, B. Bregman, H. Buiteveld, A.J. Dolman, R.W.A. Hutjes, N. Kukuric, H.A.J. Meijer, J. Oerlemans, C.J.M. van Ruiten, H. Russchenberg, and A.T. Vermeulen, Climate Change Monitoring in the Netherlands, *Scientific Assessment and Policy Analysis*, Report WAB 500102011, 2009.

Claessen, F., C. van de Guchte, H. van der Most, W. Oosterberg, R. Portielje, B. Bregman (Ed), Hoe veranderen andere landen mee met het klimaat? (in Dutch), Rapport Deltares, No. T2586, 2009.

Milieubalans, Planbureau voor de Leefomgeving (in Dutch), 2008, 2009.

Effecten van Klimaatverandering op Verkeer en Vervoer (in Dutch), Kennisinstituut Mobiliteit, 2008.

Strategische Kennis- en Innovatieagenda, Mobiliteit en Water (in Dutch), Ministerie van Verkeer en Waterstaat, 2008.

Samen werken met Kennis, Initiatief Kennis voor een veilige Delta (in Dutch), 2008.

POPULAR AND OP-EDS

Hervormingen van het IPCC. Wat is ervan terechtgekomen?, VVM, (in Dutch), 2013.

B. Bregman, Je moet alles met beleid doen: klimaatverandering en de relatie tussen wetenschap en overhead (in Dutch), Inaugural Address, Radboud University, 2012.

Builtjes, P.J.H., M. Keuken, en B. Bregman, Klimaatverandering en Luchtkwaliteit, Lucht, 2007.

B. Bregman, Zin en onzin over klimaatverandering (in Dutch), Idee, Tijdschrift van het kenniscentrum D66, jaargang 27, No. 3, 2006

B. Bregman, Europese meetcampagne, Ozongat boven noordelijk halfrond? (in Dutch), Meteorologica, december 1992.

SCIENTIFIC PEER REVIEWED

F. Berkhout, B. van den Hurk, J. Bessembinder, J. de Boer, B. Bregman, and M. van Drunen, Framing climate uncertainty: using socio-economic and climate scenarios in assessing climate vulnerability and adaptation, submitted, 2013.

Bönisch H., P. Hoor, Ch. Gurk, W. Feng, M. Chipperfield, A. Engel, B. Bregman (2008), Model evaluation of CO₂ and SF₆ in the extratropical UT/LS region, *J. Geophys. Res.*, 113, D06101, doi:10.1029/2007JD008829.

de Laat A. T. J., J. Landgraf, I. Aben, O. Hasekamp, B. Bregman (2007), Validation of Global Ozone Monitoring Experiment ozone profiles and evaluation of stratospheric transport in a global chemistry transport model, *J. Geophys. Res.*, 112, D05301, doi:10.1029/2005JD006789

Bregman, B., E. Meijer, and R. Scheele, Key Aspects of stratospheric tracer modelling using assimilated winds, *Atmos. Chem. Phys.*, 6, 4529-4543, 2006.

Williams, J.E, J. Landgraf, B. Bregman, and H. Walter, A modified band approach for accurate calculation of on-line photolysis in stratospheric-tropospheric chemical transport models, *Atmos. Chem. Phys.*, Vol. 6, 4137-4161, 2006.

Segers, A, B. Bregman, P.F.J. van Velthoven, M.C. Krol, and E.W. Meijer, Mass conservative computation of advective fluxes for tracer transport models, *Q. J. R. Meteorol. Soc.*, 133, 1 – 21, 2005.

Krol, M. , Houweling, S. , Bregman, B. , Broek, M. , Segers, A. , Velthoven, P. , Peters, W. , Dentener, F. and Bergamaschi, P., The two-way nested global chemistry-transport zoom model TM5: algorithm and applications, *Atmos. Chem. .Phys.*, Vol. 5, 417-432, 2005.

Meijer, E., B. Bregman, P.van Velthoven, The influence of data assimilation on the age of air calculated with a global chemistry-transport model using ECMWF wind fields, *Geophys. Res. Lett.*, 31, L23114, doi:10.1029/2004GL021158, 2004.

Van den Broek, M. M. P., M.K. van Aalst, B. Bregman, M.C. Krol, J. Lelieveld, G.C. Toon, S. Garcelon, G.M. Hansford, R.L. Jones, and T.D. Gardiner, The impact of model grid zooming on tracer transport in the 1999/2000 Arctic polar vortex, *Atmos. Chem. Phys.*, 3, 1833-1847, 2003.

Van Aalst, M.K., M.M.P. van den Broek, B. Bregman, C. Brühl, B. Steil, G.C. Toon, S. Garcelon, R.L. Jones, T.D. Gardiner, G.J. Roelofs, J. Lelieveld, and P.J. Crutzen, Trace gas transport in the 1999/2000 Arctic winter: comparison of nudged GCM runs with observations, *Atmos. Chem. Phys. Discuss.*, 3, 2499-2545, 2003.

Van den Broek, M.M.P., J. Williams, and B. Bregman, Implementing growth and sedimentation of NAT particles in a global Eulerian model, *Atmos. Chem. Phys.*, Vol. 3, 1833-1847, 2003.

Bregman, B., A. Segers, M. Krol, E. Meijer, and P.J.F. van Velthoven, On the use of mass-conserving wind fields in chemistry-transport models, *Atmos.Chem. Phys.*, 447-457, 2003.

Scheeren, B., H. Fischer, P. Hoor, J. Lelieveld, J. Rudolph, F. Arnold, B. Bregman, C. van der Veen, A. Engel, and D. Brunner, Measurements of reactive organic tracer species in the northern extratropical lower stratosphere: Seasonal variability and indications of recent troposphere to stratosphere exchange, *J. Geophys. Res.*, 108(D24), 4805, doi:10.1029/2003JD003650, 2003.

Bregman, B., Pi-H. Wang and J. Lelieveld, Chemical ozone loss in the tropopause region on subvisible ice clouds, calculated with a chemistry-transport model, *J. Geophys. Res.*, 107, ACH5-1-ACH5-12, 2002.

G. Pitari, E. Machini, and B. Bregman, Climate forcing of subsonic aviation: Indirect role of sulphate particles via heterogeneous chemistry, *Geophys. Res. Lett.*, 22 (29), doi: 10.1029/2002GL015705, 2002.

G. Pitari, E. Machini, B. Bregman, H.L Rogers, J.K. Sundet, V. Grewe, and O. Dessens, Sulfate particles from subsonic aviation: impact on upper tropospheric and lower stratospheric ozone, *Phys. and Chem. Earth*, 26/8, 563-569, 2001.

Bregman B., M. Krol, J. Lelieveld, W.A. Norton, A. Iwi, H. Teyssèdre, M. Chipperfield, G. Pitari and J.K. Sundet, Chemistry-Transport model comparison with ozone observations in the midlatitude lowermost stratosphere, *J. Geophys. Res.*, 106, 17,479-17,496, 2001.

Bregman, B. J. Lelieveld, M.M.P. van den Broek, P.C. Siegmund, H. Fischer, and O. Bujok, The N₂O and O₃ relationship in the lowermost stratosphere: a diagnostic for mixing processes as represented by a three-dimensional chemistry-transport model, *J. Geophys. Res.*, 105, 17279-17290, 2000.

Van den Broek, M.M.P., B. Bregman, and J. Lelieveld, Model study of stratospheric chlorine activation and ozone loss during 1996/1997 winter, *J. Geophys. Res.*, 105, 28961-28977, 2000.

J. Lelieveld, B. Bregman, H.A. Scheeren, J. Ström, K.S. Carslaw, H. Fischer, P.C. Siegmund, and F. Arnold, Chlorine activation and ozone destruction in the lowermost stratosphere, *J. Geophys. Res.*, 104, 8201-8213, 1999.

Bregman, B., M. van den Broek, K.S. Carslaw, R. Müller, Th. Peter, M.P. Scheele, and J. Lelieveld, Ozone depletion in the late winter lower Arctic stratosphere: observations and model results, *J. Geophys. Res.*, 102, 10815-10828, 1997.

Bregman, B., F. Arnold, V. Bürger, H. Fischer, J. Lelieveld, B.H. Scheeren, J. Schneider, P.C. Siegmund, J. Ström, A. Waibel, and W.M.F. Wauben, In situ trace gas and particle measurements in the summer lowermost stratosphere during STREAM-II: Implications for O₃ production, *J. Atm. Chem*, 26, 275-310, 1997.

Fischer, H., A.E. Waibel, M. Welling, F.G. Wienhold, T. Zenker, P.J. Crutzen, F. Arnold, V. Bürger, J. Schneider, B. Bregman, J. Lelieveld, and P.C. Siegmund, Observations of high concentrations of total reactive nitrogen (NO_y) and nitric acid (HNO₃) in the lower Arctic stratosphere during the STREAM II campaign in February 1995, *J. Geophys. Res.*, 102, 23559-23571, 1997.

J. Lelieveld, B. Bregman, F. Arnold, V. Bürger, P.J. Crutzen, H. Fischer, A. Waibel, P.C. Siegmund, and P.J.F. van Velthoven, Chemical perturbation of the lowermost stratosphere through exchange with the troposphere, *Geophys. Res. Lett.*, 24, 603-606, 1997.

Bregman, B, The distribution of trace gases in the lower stratosphere: Implications for ozone depletion and production, Ph. D. Thesis, Univ. of Utrecht, Utrecht, The Netherlands, 1996.

Bregman, B, P.F.J. van Velthoven, F.G. Wienhold, H. Fischer, T. Zenker, A. Waibel, A. Frenzel, F. Arnold, G.W. Harris, M.J.A. Bolder, and J. Lelieveld, Aircraft measurements of O₃, HNO₃, and N₂O in the winter Arctic lower stratosphere during the Stratosphere-Troposphere Experiment by Aircraft Measurements (STREAM) I, *J. Geophys. Res.*, 100, 11245-11260, 1995.

PROCEEDINGS

Bregman, B., P.-H. Wang, and J. Lelieveld, Chemical ozone loss in the tropopause region on subvisible ice clouds, calculated with a chemistry transport model, Air Pollution Research Report 74, in: *Proceedings of the European workshop on Aviation, Aerosols, Contrails and Cirrus clouds (A²C³)* (Ed: U. Schumann and G.T. Amanatidis, 49-52, 2001.

Bregman, B. J. Lelieveld, H.A. Scheeren, J. Ström, K.S. Carslaw, H. Fischer, P.C. Siegmund, and F. Arnold, Chlorine activation and ozone destruction in the lowermost stratosphere?, in: K.S. Carslaw and G.T. Amanatidis (Eds), *Mesoscale processes in the stratosphere, Proc. EUR. 18912*, pp. 25-30, 1999.

Bregman, B., F. Arnold, V. Bürger, H. Fischer, J. Lelieveld, B.H. Scheeren, J. Schneider, P.C. Siegmund, J. Ström, A. Waibel, and W.M.F. Wauben, In situ trace gas measurements in the summer lower stratosphere during STREAM-II: implications for the effects of aircraft emissions on ozone, In: J. Carpentier and G.T. Amanatidis (Eds), *Impact of aircraft emissions upon the atmosphere*, Proc. Comité Avion Ozone, 1997.

Bregman, B., M.M.P. van den Broek, R. Müller, K.S. Carslaw, and Th. Peter, O₃ depletion in the Arctic lower stratosphere: comparison of trajectory model results with measurements, In: J.A. Pyle, N.R.P. Harris, and G.T. Amanatidis (Eds), *Polar stratospheric Ozone*, Proc. Air Pollution research report 56, pp. 615-620, 1995.

PEER-REVIEWED INTERNATIONAL SCIENTIFIC ASSESSMENTS

World Meteorological Organisation, Scientific Assessment of Ozone Depletion: 2006, Chapter 3, Global Ozone: Past and Present, Report No. 50, Geneva, 2007.

World Meteorological Organisation, Scientific Assessment of Ozone Depletion: 2006, Chapter 5, Global Ozone: Past and Present, Report No. 50, Geneva, 2007.

Bregman, B., H. Kelder, A. Engel, R. Sausen, G. Seckmeyer, P. Siegmund, J. Staehelin, W. Sturges, R. van Dorland, and C. Zerefos, The effect of stratospheric ozone on climate: Chpt2, In: Ozone – Climate Interactions, Scientific Assessment, (N.R.P. Harris and Y. Isaksen Eds.), EUR 20623, 2003.

Third assessment of the *Intergovernmental Panel on Climate Change* (IPCC), 2001

SCIENTIFIC REPORTS

G. Kelfkens, B. Bregman, F.R. de Gruijl, J.C. van der Leun, A. Piquet, T. van Oijen, W.W.C. Gieskes, H. van Loveren, G.J.M. Velders, P. Maretens, en H. Slaper, Ozone layer – Climate change interactions: Influence on UV levels and UV related effects, NOP Report no. 410200122, 2002.

Hauchecorne, A. Th. Peter, D. Balis, B. Bregman, M.P. Chipperfield, N.R.P. Harris, W.A. Norton, J. Staehelin, and M. Weber, Chapter 4: Mid-latitude and tropical ozone, In: European Research in the Stratosphere 1996-2000 (Eds: N.R.P. Harris and G.T. Amanatidis), Report No. *EUR19867*, 2001.

Velders, G.J.M., J.P. Beck, M. Bolder, B. Bregman, H.Kelder, J.Lelieveld, E.W. Meijer, H.A. Scheeren, P.J.M. Valks, P.J.F. van Velthoven, and M. van Weele, AIRFORCE: Aircraft influences and radiative forcing from emissions, *RIVM, Report No. 728001-010*, 1998.

Heppener, M., B. Bregman, P.J.H. Builtjes, R. Engelen, M.C. Krol, R. Mewe, H. Nieuwenhuizen, J.H. Schrijver, S. Slijkhuis, M. van Weele, and J. Wijnbergen, Atmospheric Methane, a feasibility study for the Groupe Européen de Recherches Gazières, 1994.