

Bibliography of Chatanika/Sondrestrom Publications

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2017

Bhatt, A., E. Kendall, M. McCready, A. Strømme, S.R. Kaeppler, and E. Gudmundsson, "Unusual wide-bandwidth plasma line results from Greenland and comparison with multi-wavelength optical emissions," **in preparation** for *Geophys. Res. Lett.*

Friis-Christensen, E., C.C. Finlay, M. Hesse, and K.M. Laundal, "Magnetic field perturbations from currents in the dark polar regions during quiet geomagnetic conditions," *Space Sci. Rev.*, doi:10.1007/s11214-017-0332-1, 2017.

2016

Cosgrove, R.B., "Does a localized plasma disturbance in the ionosphere evolve to electrostatic equilibrium? Evidence to the contrary," *J. Geophys. Res. Space Physics*, 121, 649–687, doi:[10.1002/2015JA021672](https://doi.org/10.1002/2015JA021672), 2016.

Dombrowski, M.P., J. LaBelle, D.G. McGaw, and M.C. Broughton, "An autonomous receiver/digital signal processor applied to ground-based and rocket-borne wave experiments," *J. Geophys. Res. Space Physics*, 121, doi:[10.1002/2016JA022441](https://doi.org/10.1002/2016JA022441), 2016.

Hurd, L.D., and M.F. Larsen, "Small-scale fluctuations in barium drifts at high latitudes and associated Joule heating effects," *J. Geophys. Res. Space Physics*, 121, 779–789, doi:10.1002/2015JA021868, 2016.

LaBelle, J., and Y. Chen, "Right-hand polarized $4f_{ce}$ auroral roar, 1: observations," *J. Geophys. Res.*, 10.1002/2016JA022890, 2016.

Vierinen, J., A. Bhatt, M.A. Hirsch, A. Strømme, J.L. Semeter, S.-R. Zhang, and P.J. Erickson, "High temporal resolution observations of auroral electron density using superthermal electron enhancement of Langmuir waves," *Geophys. Res. Lett.*, 43, 5979–5987, doi:[10.1002/2016GL069283](https://doi.org/10.1002/2016GL069283), 2016.

Yang, S.-G., B.-C. Zhang, H.-X. Fang, Y. Kamide, C.-Y. Li, J.-M. Liu, S.-R. Zhang, R.-Y. Liu, Q.-H. Zhang, and H.-Q. Hu, "New evidence of dayside plasma transportation over the polar cap to the prevailing dawn sector in the polar upper atmosphere for solar-maximum winter," *J. Geophys. Res. Space Physics*, 121, 5626–5638, doi:10.1002/2015JA022171, 2016.

Zhang, S.-R., J. Holt, P. Erickson, L. Goncharekno, M. Nicolls, M. McCready, and J. Kelly, "Ionospheric ion temperature climate and upper atmospheric long-term cooling," *J. Geophys. Res.*, doi:10.1002/2016JA022971, 2016.

- Zhang, Q.-H., J. Moen, M. Lockwood, I. McCrea, B.-C. Zhang, K.A. McWilliams, Q.-G. Zong, S.-R. Zhang, J.M. Ruohoniemi, E.G. Thomas, M.W. Dunlop, R.-Y. Liu, H.-G. Yang, H.-Q. Hu, and M. Lester, "Polar cap patch transportation beyond the classic scenario," *J. Geophys. Res. Space Physics*, 121, doi:10.1002/2016JA022443, 2016.
- Zhu, J., [A.J. Ridley](#), and Y. Deng, "[Simulating electron and ion temperature in a global ionosphere thermosphere model: Validation and modeling an idealized substorm](#)," 138, 243-260, *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2016.01.005, 2016.

2015

- Immel, T.J., G. Liu, S.L. England, L.P. Goncharenko, P.J. Erickson, M.V. Lyashenko, M.A. Milla, J. Chau, H.U. Frey, S.B. Mende, Q. Zhou, A. Stromme, and L.J. Paxton, "The August 2011 URSI World Day campaign: Initial results," *J. Atmos. Solar-Terr. Phys.*, 134, 47-55, doi:10.1016/j.jastp.2015.09.005, 2015.
- Kaeppler, S.R., D.L. Hampton, M.J. Nicolls, A. Strømme, S.C. Solomon, J.H. Hecht, and M.G. Conde, "An investigation comparing ground-based techniques that quantify auroral electron flux and conductance," *J. Geophys. Res.*, 120, doi:10.1002/2015JA021396, 2015.
- Kim, H., C.R. Clauer, M.J. Engebretson, J. Matzka, D.G. Sibeck, H.J. Singer, C. Stolle, D.R. Weimer, and Z. Xu, "Conjugate observations of traveling convection vortices associated with transient events at the magnetopause," *J. Geophys. Res.*, 120, 2015–2035. doi:10.1002/2014JA020743, 2015.
- [Liu](#), J., T. Nakamura, [L. Liu](#), W. Wang, N. Balan, T. Nishiyama, M. Hairston, and E. Thomas, "[Formation of polar ionospheric tongue of ionization during minor geomagnetic disturbed conditions](#)," *J. Geophys. Res.*, 120, 6860-6873, doi:10.1002/2015JA021393, 2015.
- Maltseva, O.A., N.S. Mozhaeva, T.V. Nikitenko, "[Comparative analysis of two new empirical models IRI-Plas and NGM \(the Neustrelitz Global Model\)](#)," 55, 2086-2098, *Adv. in Space Res.*, 2015.
- [Oberheide](#), J., K. Shiokawa, S. Gurubaran, W. Ward, H. Fujiwara, M. Kosch, J. Makela, and H. Takahashi, "[The geospace response to variable inputs from the lower atmosphere: a review of the progress made by Task Group 4 of CAWSES-II](#)," *Prog. in Earth and Planet. Sci.*, doi:10.1186/s40645-014-0031-4, 2015.
- Polekh, N.M., E.B. Romanova, K.G. Ratovsky, J.K. Shi, X. Wang, and G. Wang, "[Studying the G condition occurrence in different latitudes under solar minimum: Observation and modeling](#)," *J. Atmos. Solar-Terr. Phys.*, 130, 132-141, doi:10.1016/j.jastp.2015.06.001, 2015.
- Valladares, C.E., T. Pedersen, and R. Sheehan, "Polar cap patches observed during the magnetic storm of November 2003: observations and modeling," *Ann. Geophys.*, doi:10.5194/angeo-33-1117-2015, 2015.
- van der A, R.J., M.A.F. Allaart, and H.J. Eskes, "Extended and refined multi sensor reanalysis of total ozone for the period 1970–2012," *Atmos. Meas. Tech.*, 8, 3021-3035, doi:10.5194/amt-8-3021-2015, 2015.

2014

- Cosgrove, R.B., H. Bahcivan, S. Chen, R.J. Strangeway, J. Ortega, M. Alhassan, Y. Xu, M. Van Welie, J. Rehberger, S. Musielak, and N. Cahill, "Empirical Model of Poynting Flux Derived from FAST Data," *J. Geophys. Res.*, 119, 1, 411-430, doi:10.1002/2013JA019105, 2014.
- Jackel, B.J., C. Unick, M.T. Syrjäsuo, N. Partamies, J.A. Wild, E.E. Woodfield, I. McWhirter, E. Kendall, and E. Spanswick, "Auroral spectral estimation with wide-band color mosaic CCDs," *Geosci. Instrum. Method. Data Syst.*, 3, 71-94, doi:10.5194/gi-3-71-2014, 2014.
- Kaeppler, S.R., M.J. Nicolls, A. Strømme, C.A. Kletzing, and S.R. Bounds, "Observations in the *E*-region ionosphere of kappa distribution functions associated with precipitating auroral electrons and discrete aurorae," *J. Geophys. Res.*, doi:10.1002/2014JA020356, 2014.
- Oltrogge, D.L., P. North, and M. Nicolls, "Multi-phenomenology Observation Network Evaluation Tool (MONET)," Proceedings of the 2014 AMOS Conference, 2014.
- Panicciari, T., N.D. Smith, F. Da Dalt, C.N. Mitchell and G.S. Bust, "Mitigation of Ionospheric Threats to GNSS: an Appraisal of the Scientific and Technological Outputs of the TRANSMIT Project," in *Multiresolution Tomography of Ionospheric Electron Density*, Edited by [Riccardo Notarpietro](#), [Fabio Dovis](#), [Giorgiana De Franceschi](#) and [Marcio Aquino](#), ISBN 978-953-51-1642-4, Publisher: InTech, doi:10.5772/58550, 2014.
- Pradipta, R., C.E. Valladares, and P.H. Doherty, "GPS observation of continent-size traveling TEC pulsations at the start of geomagnetic storms," *J. Geophys. Res.*, 119, 8, 6913-6924, doi:10.1002/2014JA020177, 2014.
- Sánchez, E.R., and A. Strømme, "Incoherent scatter radar-FAST satellite common volume observations of upflow-to-outflow conversion," *J. Geophys. Res.*, 119, doi:10.1002/2013JA019096, 2014.

2013

- Baumgaertner, A.J.G., J.P. Thayer, R.R. Neely, and G. Lucas, "Toward a comprehensive global electric circuit model: Atmospheric conductivity and its variability in DESM1 (WACCM) model simulations," 118, 16, 9221-9232, *J. Geophys. Res.*, doi:10.1002/jgrd.50725, 2013.
- Engebretson, M.J., T.K. Yeoman, K. Oksavik, F. Søråas, F. Sigernes, J. I. Moen, M.G. Johnsen, V.A. Pilipenko, J.L. Posch, M.R. Lessard, B. Lavraud, M.D. Hartinger, L.B.N. Clausen, T. Raita, and C. Stolle, "Multi-instrument observations from Svalbard of a traveling convection vortex, electromagnetic ion cyclotron wave burst, and proton precipitation associated with a bow shock instability," *J. Geophys. Res.*, 118, 6, 2975-2997, doi:10.1002/jgra.50291, 2013.
- Keiling, A., E. Donovan, F. Bagenal, and T. Karlsson, "Auroral Phenomenology and Magnetospheric Processes: Earth and Other Planets," John Wiley & Sons, May 9, 2013.
- Kim, H., X. Cai, C.R. Clauer, B.S.R. Kunduri, J. Matzka, C. Stolle, and D.R. Weimer, "Geomagnetic response to solar wind dynamic pressure impulse events at high-latitude conjugate points," *J. Geophys. Res.*, 118, 6055-6071, doi:10.1002/jgra.50555, 2013.
- Matsuo, K., B.F. Chao, T. Otsubo, and K. Heki, "Accelerated ice mass depletion revealed by low-degree gravity field from satellite laser ranging: Greenland, 1991-2011," *Geophys. Res. Lett.*, 40, 1-6, doi:10.1002/grl.50900, 2013.

- McCready, M.A. and C.J. Heinselman, "The Chatanika and Sondrestrom Radars – a brief history," *Hist. Geo. Space Sci.*, 1, 106, doi:10.5194/hgss-1-1-2013, 2013.
- Mertens, C.J., X. Xu, D. Bilitza, M.G. Mlynczak, and J.M. Russell, "Empirical STORM-E model: II. Geomagnetic corrections to nighttime ionospheric *E*-region electron densities," *Adv. Space Res.*, 51, 575-598, doi:10.1016/j.asr.2012.09.014, 2013.
- Michell, R.G. and M. Samara, "Observability of NEIALs with the Sondrestrom and Poker Flat incoherent scatter radars," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2012.12.008i, 2013.
- Neely, R.R., M. Hayman, R. Stillwell, J.P. Thayer, R.M. Hardesty, M. O'Neill, M.D. Shupe, C. Alvarez, "Polarization lidar at Summit, Greenland, for the detection of cloud phase and particle orientation," 30, 8, 1635-1655, *J. Atmos. & Oceanic Tech.*, 2013.
- Posch, J.L., M.J. Engebretson, A.J. Witte, D.L. Murr, M.R. Lessard, M.G. Johnsen, H.J. Singer, and M.D. Hartinger, "Simultaneous traveling convection vortex (TCV) events and Pc1 wave bursts at cusp latitudes observed in Arctic Canada and Svalbard," *J. Geophys. Res.*, 118, 1-12, doi:10.1002/jgra.50604, 2013.
- Walter, F., M. Olivieri, and J.F. Clinton, "Calving event detection by observation of seiche effects on the Greenland fjords," *J. Glaciology*, 59, 213, doi:10.3189/2013JoG12J118, 2013.

2012

- Amundson, J.M., J.F. Clinton, M. Fahnestock, M. Truffer, M.P. Lüthi, and R. Motyka, "Observing calving-generated ocean waves with coastal broadband seismometers, Jakobshavn Isbrae, Greenland," *Annals of Glaciology*, 53, Number 60, pp. 79-84(6), 2012.
- Broughton, M.C., J. LaBelle, G.T. Roberg-Clark, M.A. McCready, N.L. Bunch, "Experimental tests of a topside generation mechanism for auroral medium frequency radio emissions," *J. Geophys. Res.*, 117, A12, doi:10.1029/2012JA018034, 2012.
- Cosgrove, R.B. and E. Sanchez, "Correlation as a global measure of geomagnetic activity: Phase boundaries and a precedent line of nodes," *J. Geophys. Res.*, 117, A6, doi:10.1029/2011JA017483, 2012.
- Harteringer, M., V. Angelopoulos, M.B. Moldwin, Y. Nishimura, D.L. Turner, K.-H. Glassmeier, M.G. Kivelson, J. Matzka, and C. Stolle, 2012. "Observations of a Pc5 global (cavity/waveguide) mode outside the plasmasphere by THEMIS," *J. Geophys. Res.*, 117, 6, A06202, 2012.
- Lu, G., L. Goncharenko, M.J. Nicolls, A. Maute, A. Coster, and L.J. Paxton, "Ionospheric and thermospheric variations associated with prompt penetration electric fields," *J. Geophys. Res.*, 117, A08312, doi:10.1029/2012JA017769, 2012.
- Shi, Y., E. Zesta, L.R. Lyons, X. Xing, V. Angelopoulos, E. Donovan, M.A. McCready, C.J. Heinselman, "Multi-point observations of substorm pre-onset flows and time sequence in the ionosphere and magnetosphere," *J. Geophys. Res.*, doi:10.1029/2011JA017185, 2012.
- Walter, F., J.M. Amundson, S. O'Neel, M. Truffer, M. Fahnestock, and H.A. Fricker (2012), "Analysis of low-frequency seismic signals generated during a multiple-iceberg calving event at Jakobshavn Isbrae, Greenland," *J. Geophys. Res.*, 117, F01036, doi:10.1029/2011JF002132, 2012.

- Weygand, J. M., O. Amm, V. Angelopoulos, S.E. Milan, A. Grocott, H. Gleisner, and C. Stolle, "Comparison between SuperDARN flow vectors and equivalent ionospheric currents from ground magnetometer arrays," *J. Geophys. Res.*, 117, A05325, doi:10.1029/2011JA017407, 2012.
- Yang, J., F.R. Toffoletto, R.A. Wolf, S. Sazykin, P.A. Ontiveros, and J.M. Weygand, "Large-scale current systems and ground magnetic disturbance during deep substorm injections," *J. Geophys. Res.*, 117, A04223, doi:10.1029/2011JA017415, 2012.
- Zettergren, M. and J.L. Semeter, "Ionospheric plasma transport and loss in auroral downward current regions," *J. Geophys. Res.*, 117, A06306, doi:10.1029/2012JA017637, 2012.

2011

- Cosgrove, R., M. McCready, R. Tsunoda and A. Strømme, "The bias on the Joule heating estimate: Small-scale variability versus resolved-scale model uncertainty and the correlation of electric field and conductance," *J. Geophys. Res.*, 116, A09320, doi:10.1029/2011JA016665, 2011.
- Korotova, G.I., D.G. Sibeck, A. Weatherwax, V. Angelopoulos and V. Styazhkin, "THEMIS observations of a transient event at the magnetopause," *J. Geophys. Res.*, 116, A07224, doi:10.1029/2011JA016606, 2011.
- LaBelle, J., "An explanation for the fine structure of MF burst emissions," *Geophys. Res. Lett.*, 38, L03105, doi:10.1029/2010GL046218, 2011.
- Mackay, C. and A.C. Fraser-Smith, "World coverage for single station lightning detection," *Radio Sci.*, 46, RS0M01, doi:10/1029/2010RS004600, 2011.
- Neely, R.R. and J.P. Thayer, "Raman lidar profiling of tropospheric water vapor over Kangerlussuaq, Greenland," *J. Atmos. and Oceanic Tech.*, 28, 1141-1148, doi:10.1175/JTECH-D-10-05021.1, 2011.
- Nerem, R.S. and J. Wahr, "Recent changes in the Earth's oblateness driven by Greenland and Antarctic ice mass loss," *Geophys. Res. Lett.*, 38, L13501, doi:10.1029/2011GL047879, 2011.
- Tomita, S., M. Nosé, T. Iyemori, H. Toh, M. Takeda, J. Matzka, G. Bjornsson, T. Saemundsson, A. Janzhura, O. Troshichev, and G. Schwarz, "Magnetic local time dependence of geomagnetic disturbances contributing to the AU and AL indices," *Ann. Geophys.*, 29, pp. 673-678, doi:10.5194/angeo-29-673-2011, 2011.
- Volwerk, M., J. Berchem, Y.V. Bogdanova, O.D. Constantinescu, M.W. Dunlop, J.P. Eastwood, P. Escoubet, A.N. Fazakerley, H. Frey, H. Hasegawa, B. Lavraud, E.V. Panov, C. Shen, J.K. Shi, M.G.G.T. Taylor, J. Wang, J.A. Wild, Q.-H. Zhang, O. Amm and J.M. Weygand, "Interplanetary magnetic field rotations followed from L1 to the ground: the response of the Earth's magnetosphere as seen by multi-spacecraft and ground-based observations," *Ann. Geophys.*, 29, 1549-1569, doi:10.5194/angeo-29-1-2011, 2011.
- Weygand, J.M., O. Amm, A. Viljanen, V. Angelopoulos, D. Murr, M.J. Engebretson, H. Gleisner, and I. Mann, "Application and validation of the spherical elementary currents systems technique for deriving ionospheric equivalent currents with the North American and Greenland ground magnetometer arrays," *J. Geophys. Res.*, 116, A03305, doi:10.1029/2010JA016177, 2011.
- Wilder, F.D., C.R. Clauer, J.B.H. Baker, and P.T. Newell, "Interhemispheric observations of dayside convection under northward IMF," *J. Geophys. Res.*, 116, A10230, doi:10.1029/2011JA016748, 2011.

- Wissing, J.M., M.-B. Kallenrode, J. Kieser, H. Schmidt, M.T. Reitveld, A. Strømme and P.J. Erickson, "Atmospheric Ionization Module Osnabrück (AIMOS): 3. Comparison of electron density simulations by AIMOS-HAMMONIA and incoherent scatter radar measurements," *J. Geophys. Res.*, 116, A08305, doi:10.1029/2010JA016300, 2011.
- Xiong, B., W. Wan, L. Liu, P. Withers, B. Zhao, B. Ning, Y. Wei, H. Le, Z. Ren, Y. Chen, M. He and J. Liu, "Ionospheric response to the X-class solar flare on 7 September 2005," *J. Geophys. Res.*, 116, A11317, doi:10.1029/2011JA016961, 2011.
- Zesta, E., Y. Shi, E. Donovan, E. Spanswick, L.R. Lyons, V. Angelopoulos, J.P. McFadden, C.W. Carlson, H.-U. Auster, S. Mende, M.A. McCready, C.J. Heinselman and E. Kendall, "Ionospheric convection signatures of tail fast flows during substorms and Poleward Boundary Intensifications (PBI)," *Geophys. Res. Lett.*, 38, L08105, doi:10.1029/2011GL046758, 2011.
- Zettergren, M., J. Semeter, C. Heinselman, and M. Diaz, "Incoherent scatter radar estimation of *F*-region ionospheric composition during frictional heating events," *J. Geophys. Res.*, 116, A01318, doi:10.1029/2010JA016035, 2011.

2010

- Bahcivan, H. and R.B. Cosgrove, "On the generation of large wave parallel electric fields responsible for electron heating in the high-latitude *E* region," *J. Geophys. Res.*, 115, A10304, doi:10.1029/2010JA015424, 2010. Erickson, P.J., L.P. Goncharenko, M.J. Nicolls, M. Ruohoniemi, and M.C. Kelley, "Dynamics of North American sector ionospheric and thermospheric response during the November 2004 superstorm," *J. Atmos. Solar-Terr. Phys.*, 72(4), 292–301, doi:10.1016/j.jastp.2009.04.001, 2010.
- Fernandez, J.R., C.J. Mertens, D. Bilitza, X. Xu, J.M. Russell, and M.G. Mlynczak, "Feasibility of developing and ionospheric E-region electron density storm model using TIMED/SABER measurements," *Adv. Space Res.*, 46, 1070-1077, doi:10.1016/j.asr.2010.06.008, 2010.
- Hayman, M. and J.P. Thayer, "Lidar polarization measurements of PMCs," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2010.08.007, 2010.
- Khan, S. A., L. Liu, J. Wahr, I. Howat, I. Joughin, T. van Dam, and K. Fleming (2010), GPS measurements of crustal uplift near Jakobshavn Isbræ due to glacial ice mass loss, *J. Geophys. Res.*, 115, B09405, doi:10.1029/2010JB007490, 2010.
- Khan, S.A., J. Wahr, M. Bevis, I. Velicogna and E. Kendrick, "Spread of ice mass loss into northwest Greenland observed by GRACE and GPS," *Geophys. Res. Lett.*, 37, L06501, doi:10.1029/2010GL042460, 2010.
- Kelley, M.C., M.J. Nicolls, R.H. Varney, R.L. Collins, R. Doe, J.M.C. Plane, J. Thayer, M. Taylor, B. Thuraiajah and K. Mizutani, "Radar, lidar, and optical observations in the polar summer mesosphere shortly after a space shuttle launch," *J. Geophys. Res.*, 115, A05304, doi:10.1029/2009JA014938, 2010.
- Lyons, L.R., Y. Nishimura, Y. Shi, S. Zou, H.-J. Kim, V. Angelopoulos, C. Heinselman, M.J. Nicolls, and K.-H. Fornacon, "Substorm triggering by new plasma intrusion: Incoherent-scatter radar observations," *J. Geophys. Res.*, 115, A07223, doi:10.1029/2009JA015168, 2010.

- Mackay, C. and A.C. Fraser-Smith, "Lightning location using the slow tails of sferics," *Radio Sci.*, 45, RS5010, doi:10.1029/2010RS004405, 2010.
- Momani, M.A., B. Yatim, and M.A. Mohd Ali, "Ionospheric and geomagnetic response to the total solar eclipse on 1 August 2008 over Northern Hemisphere," *J. Geophys. Res.*, 115, A08321, doi:10.1029/2009JA014999, 2010.
- Taguchi, S., K. Hosokawa, S. Suzuki, A. Tawara, H.U. Frey, J. Matzka, A.S. Yukimatu, and N. Sato, "Plasma flow during the brightening of proton aurora in the cusp," *J. Geophys. Res.*, 115, A10308, doi:10.1029/2010JA015535, 2010.
- Thurairajah, B., R.L. Collins, V.L. Harvey, R.S. Lieberman, M. Gerding, K. Mizutani, and J.M. Livingston, "Gravity wave activity in the Arctic stratosphere and mesosphere during the 2007-2008 and 2008-2009 stratospheric sudden warming events," *J. Geophys. Res.*, 115, D00N06, doi:10.1029/2010JD014125, 2010.
- Simms, L.E., V.A. Pilipenko, and M.J. Engebretson, "Determining the key drivers of magnetospheric Pc5 wave power," *J. Geophys. Res.*, 115, A10241, doi:10.1029/2009JA015025, 2010.
- van Dam, T., Z. Altamimi, X. Collilieux, and J. Ray, "Topographically induced height errors in predicted atmospheric loading effects," *J. Geophys. Res.*, 115, B07415, doi:10.1029/2009JB006810, 2010.
- Weimer, D.R., C.R. Clauer, M.J. Engebretson, T.L. Hansen, H. Gleisner, I. Mann, and K. Yumoto, "Statistical maps of geomagnetic perturbations as a function of the interplanetary magnetic field," *J. Geophys. Res.*, 115, A10320, doi:10.1029/2010JA015540, 2010.
- Zettergren, M., J. Semeter, C. Heinselman, M. Diaz, and P.-L. Blelly, "Dynamic variability in *F*-region ionospheric composition at auroral arc boundaries," *Ann. Geophys.*, 28, 651–664, www.ann-geophys.net/28/651/2010/, 2010.
- Zhang, S.-R., J.M. Holt, A.P. van Eyken, C. Heinselman, and M. McCready, "IPY observations of ionospheric yearly variations from high to middle latitude incoherent scatter radars," *J. Geophys. Res.*, 115, A03303, doi:10.1029/2009JA014327, 2010.

2009

- Brower L., J.P. Thayer, J.-P. St.-Maurice, "Frictionally heated electrons in the high-latitude *D* region," *J. Geophys. Res.*, 114, A12302, doi:10.1029/2009JA014421, 2009.
- Cosgrove, R.B., G. Lu, H. Bahcivan, T. Matsuo, C.J. Heinselman, and M.A. McCready, "Comparison of AMIE modeled and Sondrestrom measured Joule heating: a study in model resolution and electric field/conductivity correlation," *J. Geophys. Res.*, 114, A04316, doi:10.1029/2008JA013508, 2009.
- Cosgrove, R.B. and M. Codrescu, "Electric-field-variability and model uncertainty: a classification of source terms in estimating the squared-electric-field from an electric field model," *J. Geophys. Res.*, 114, A06301, doi:10.1029/2008JA013929, 2009.
- Dou, X., T. Li, J. Xu, H.-L. Liu, X. Xue, S. Wang, T. Leblanc, I.S. McDermid, A. Hauchecorne, P. Keckhut, H. Bencherif, C.J. Heinselman, W. Steinbrecht, M.G. Mlynczak, and J.M. Russell III, "Seasonal oscillations of middle atmosphere temperature observed by Rayleigh lidars and their comparisons with TIMED/SABER observations," *J. Geophys. Res.*, 114, D20103, doi:10.1029/2008JD011654, 2009.

- Erickson, P.J., L.P. Goncharenko, M.J. Nicolls, M. Ruohoniemi, and M.C. Kelley, "Dynamics of North American sector ionospheric and thermospheric response during the November 2004 superstorm," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2009.04.001, 2009, <http://dx.doi.org/10.1016/j.jastp.2009.04.001>.
- Hayman, M., and J.P. Thayer, "Explicit description of polarization coupling in lidar applications," *Opt. Lett.*, 34(5), 611–613, doi:10.1364/OL.34.000611, 2009.
- Kim, H.-J., L.R. Lyons, S. Zou, A. Boudouridis, D.-Y. Lee, C. Heinselman, and M. McCready, "Evidence that solar wind fluctuations substantially affect the strength of dayside ionospheric convection," *J. Geophys. Res.*, 114, A11305, doi:10.1029/2009JA014280, 2009.
- Lyons, L.R., H.-J. Kim, X. Xing, S. Zou, D.-Y. Lee, C.J. Heinselman, M.J. Nicolls, V. Angelopoulos, D. Larson, J. McFadden, A. Runov, and K.-H. Fornacon, "Evidence that solar wind fluctuations substantially affect global convection and substorm occurrence," *J. Geophys. Res.*, 114, A11306, doi:10.1029/2009JA014281, 2009.
- Oyama, S.-I., T.T. Tsuda, T. Sakanoi, Y. Obuchi, K. Asamura, M. Hirahara, A. Yamazaki, Y. Kasaba, R. Fujii, S. Nozawa and B.J. Watkins, "Spatial evolution of frictional heating and the predicted thermospheric-wind effects in the vicinity of an auroral arc measured with the Sondrestrom incoherent-scatter radar and the Reimei satellite," *J. Geophys. Res.*, doi:10.1029/2009JA014091, 2009.
- Pulkkinen, A. and L. Rastätter, "Minimum variance analysis-based propagation of the solar wind observations: Application to real-time global magnetohydrodynamic simulations," *Space Weather*, Vol. 7, S12001, doi:10.1029/2009SW000468, 2009.
- Rial, J.A., C. Tang, and K. Steffen, "Glacial rumblings from Jakobshavn ice stream, Greenland," *J. Glaciology*, 55, 191, pp. 389-399, doi:10.3189/002214309788816623, 2009.
- Ritchie, S.E. and F. Honary, "Storm sudden commencement and its affect on high-latitude HF Communication Links," *Space Weather*, Vol. 7, S06005, doi:10.1029/2008SW000461, 2009.
- Thurairajah, B., R.L. Collins, and K. Mizutani, "Multi-year temperature measurements of the middle atmosphere at Chatanika, Alaska (65°N, 147°W)," *Earth, Planets and Space*, 61, 6, 755–764, 2009.
- Watermann, J., and H. Gleisner, "Geomagnetic variations and their time derivatives during geomagnetic storms at different levels of intensity," *Acta. Geophysica*, 57, 197–208, 2009.

2008

- Bahcivan, H., and R. Cosgrove, "Enhanced ion acoustic lines due to strong ion cyclotron wave fields," *Ann. Geophys.*, Vol. 26, 2081–2095, 2008.
- Bust, G.S., and C.N. Mitchell, "History, current state, and future directions of ionospheric imaging," *Rev. Geophys.*, 46, RG1003, doi:10.1029/2006RG000212, 2008.
- Drob, D.P., J.T. Emmert, G. Crowley, J.M. Picone, G.G. Shepherd, W. Skinner, P. Hays, R.J. Niciejewski, M. Larsen, C.Y. She, J.W. Meriwether, G. Hernandez, M.J. Jarvis, D.P. Sipler, C.A. Tepley, M.S. O'Brien, J.R. Bowman, Q. Wu, Y. Murayama, S. Kawamura, I.M. Reid and R.A. Vincent, "An empirical model of the Earth's horizontal wind fields: HWM07," *J. Geophys. Res.*, 113, A12304, doi:10.1029/2008JA013668, 2008.

- Emmert, J.T., and D.P. Drob, "DWM07 global empirical model of upper thermospheric storm-induced disturbance winds," *J. Geophys. Res.*, 113, A11319, doi:10.1029/2008JA013541, 2008.
- Forsyth, C., M. Lester, S.W.H. Cowley, I. Dandouras, A.N. Fazakerley, R.C. Fear, H.U. Frey, A. Grocott, A. Kadokura, E. Lucek, H. Rème, S.E. Milan, and J. Watermann, "Observed tail current systems associated with bursty bulk flows and auroral streamers during a period of multiple substorms," *Ann. Geophys.*, Vol. 26, 167–184, 2008.
- Farrugia, C.J., F.T. Gratton, E.J. Lund, P.E. Sandholt, S. Cowley, R.B. Torbert, G. Gnavi, I.R. Mann, L. Bilbao, C. Mouikis, L.M. Kistler, C.W. Smith, H.J. Singer, and J.F. Watermann, "Two-stage oscillatory response of the magnetopause to a tangential discontinuity/vortex sheet followed by northward IMF: Cluster observations," *J. Geophys. Res.*, 113, doi:10.1029/2007JA012800, 2008.
- Khan, S.A., J. Wahr, E. Leuliette, T. van Dam, K.M. Larson and O. Francis, "Geodetic measurements of postglacial adjustments in Greenland," *J. Geophys. Res.*, 113, B02402, doi:10.1029/2007JB004956, 2008.
- Mathews, J.D., S.J. Briczinski, D.D. Meisel, C.J. Heinselman, "Radio and meteor science outcomes from comparisons of meteor radar observations at AMISR Poker Flat, Sondrestrom, and Arecibo," *Earth Moon Planet*, doi:10.1007/s11038-007-9168-0, 2008.
- Nettles, M., T.B. Larsen, P. Elósegui, G.S. Hamilton, L.A. Stearns, A.P. Ahlstrom, J.L. Davis, M.L. Andersen, J. de Juan, S.A. Khan, L. Stensing, G. Ekstrom, and R. Forsberg, "Step-wise changes in glacier flow speed coincide with calving and glacial earthquakes at Helheim Glacier, Greenland," *Geophys. Res. Lett.*, 35, L24503, doi:10.1029/2008GL036127, 2008.
- Schunk, R.W., and L. Zhu, "Response of the ionosphere-thermosphere system to magnetospheric processes," *J. Atmos. Solar-Terr. Phys.*, Vol. 70, 2358–2373, 2008.
- Thayer, J.P., and J.M. Livingston, "Observations of wintertime Arctic mesospheric cooling associated with stratospheric baroclinic zones," *Geophys. Res. Lett.*, 35, L18803, doi:10.1029/2008GL034955, 2008.
- Zettergren, M., J. Semeter, P.-L. Blelly, G. Sivjee, I. Azeem, S. Mende, H. Gleisner, M. Diaz, and O. Witasse, "Optical estimation of auroral ion upflow: 2. A case study," *J. Geophys. Res.*, 113, A07308, doi:10.1029/2008JA013135, 2008.
- Zou, S., L.R. Lyons, M.A. McCready, and C.J. Heinselman, "High-time resolution dayside convection monitoring by incoherent scatter radar and a sample application," *J. Geophys. Res.*, 113, A01203, doi:10.1029/2007JA012364, 2008.

2007

- Bahcivan, H., "Plasma wave heating during extreme electric fields in the high-latitude *E* region," *Geophys. Res. Lett.*, 34, L15106, doi:10.1029/2006GL029236, 2007.
- Bust, G.S. and G. Crowley, "Tracking of polar cap ionospheric patches using data assimilation," *J. Geophys. Res.*, 112, A05307, doi:10.1029/2005JA011597, 2007.
- Bust, G.S., G. Crowley, T.W. Garner, T.L. Gaussiran II, R.W. Meggs, C.N. Mitchell, P.S.J. Spencer, P. Yin and B. Zapfe, "Four-dimensional GPS imaging of space weather storms," *Space Weather*, 5, S02003, doi:10.1029/2006SW000237, 2007.

- Fraser-Smith, A.C., "The effective antenna noise figure F_a for a vertical loop antenna and its application to ELF/VLF atmospheric noise," *Radio Sci.*, 42, RS4026, doi:10.1029/2005RS003387, 2007.
- Fuller-Rowell, T., M. Codrescu, N. Maruyama, M. Fredrizzi, E. Araujo-Pradere, S. Sazykin and G. Bust, "Observed and modeled thermosphere and ionosphere response to superstorms," *Radio Sci.*, 42, RS4S90, doi:10.1029/2005RS003392, 2007.
- Green, D.L., D.L. Waters, H. Korth, B.J. Anderson, A.J. Ridley and R.J. Barnes, "Technique: Large-scale ionospheric conductance estimated from combined satellite and ground-based electromagnetic data," *J. Geophys. Res.*, 112, A05303, doi:10.1029/2006JA012069, 2007.
- Kozyreva, O., V. Pilipenko, M.J. Engebretson, K. Yumoto, J. Watermann and N. Romanova, "In search of a new ULF wave index: Comparisons of PC5 power with dynamics of geostationary relativistic electrons," *Planet. Space Sci.*, 55, 755–769, 2007.
- Mathews, J.D., S.J. Briczinski, D.D. Meisel, C.J. Heinselman, "Radio and meteor science outcomes from comparisons of meteor radar observations at AMISR Poker Flat, Sondrestrom, and Arecibo," *Earth Moon Planet*, doi:10.1007/s11038-007-9168-0, 2007.
- Posch, J.L., M.J. Engebretson, S.B. Mende, H.U. Frey, R.L. Arnoldy, M.R. Lessard, L.J. Lanzerotti, J. Watermann, M.B. Moldwin, and P.V. Ponomarenko, "Statistical observations of spatial characteristics of Pi1B pulsations," *J. Atmos. Solar-Terr. Phys.*, 69, 1775–1796, 2007.
- Schunk, R., T. van Eyken, M. McCready, C. Heinselman, J. Kelly, "Ionospheric Challenges of the International Polar Year," *Eos Trans. AGU*, 88(15), 171, doi:10.1029/2007EO150003, 2007.
- Tsunoda, R., P. Stauning, and J. Olesen, "On electrodynamic measurements in the polar ionosphere with a monostatic incoherent-scatter radar," *Radio Sci.*, V.42, RS2013, doi:10.1029/2006RS003471, 2007.
- Yagova, N., V. Pilipenko, J. Watermann and K. Yumoto, "Control of high latitude geomagnetic fluctuations by interplanetary parameters: The role of suprathermal ions," *Ann. Geophys.*, Vol. 25, 1037–1047, 2007.
- Zhang, S.-R., and J. M. Holt, "Ionospheric climatology and variability from long-term and multiple incoherent scatter radar observations: Climatology in eastern American sector," *J. Geophys. Res.*, 112, A06328, doi:10.1029/2006JA012206, 2007.
- Zhang, S.-R., J. M. Holt, D. Bilitza, A.P. van Eyken, M. McCready, C. Amory-Mazaudier, S. Fukao, and M. Sulzer, "Multiple-site comparisons between models of incoherent scatter radar and IRI," *Adv. Space Res.*, 39, 910–917, doi:10.1016/j.asr.2006.05.027, 2007.

2006

- Bahcivan, H., R.B. Cosgrove, and R.T. Tsunoda, "Parallel electron streaming in the high-latitude E region and its effect on the incoherent scatter spectrum," *J. Geophys. Res.*, 111, A07306, doi:10.1029/2005JA011595, 2006.
- Benkevitch, L.V., A.V. Koustov, J. Liang and J.F. Watermann, "Comparison of the magnetic equivalent convection direction and ionospheric convection observed by the SuperDARN radars," *Ann. Geophys.*, V.24, 2981–2990, 2006.

- Cosgrove, R.B., and J.P. Thayer, "Parametric dependence of electric field variability in the Sondrestrom database: A linear relation with Kp ," *J. Geophys. Res.*, 111, A10313, doi:10.1029/2006JA011658, 2006.
- Crowley, G., C.L. Hackert, R.R. Meier, D.J. Strickland, L.J. Paxton, X. Pi, A. Manucci, A.B. Christensen, D. Morrison, G.S. Bust, R.G. Roble, N. Curtis and G. Wene, "Global thermosphere-ionosphere response to onset of 20 November 2003 magnetic storm," *J. Geophys. Res.*, 111, A10S18, doi:10.1029/2005JA011518, 2006.
- Emmert, J.T., M.L. Faivre, G. Hernandez, M.J. Jarvis, J.W. Meriwether, R.J. Niciejewski, D.P. Sipler, and C.A. Tepley, "Climatologies of nighttime upper thermospheric winds measured by ground-based Fabry-Perot interferometers during geomagnetically quiet conditions: 1. Local time, latitudinal, seasonal, and solar cycle dependence," *J. Geophys. Res.*, 111, A12302, doi:10.1029/2006JA011948, 2006.
- Emmert, J.T., G. Hernandez, M.J. Jarvis, R.J. Niciejewski, D.P. Sipler, S. Vennerstrom, "Climatologies of nighttime upper thermospheric winds measured by ground-based Fabry-Perot interferometers during geomagnetically quiet conditions: 2. High-latitude circulation and interplanetary magnetic field dependence," *J. Geophys. Res.*, 111, A12303, doi:10.1029/2006JA011949, 2006.
- Foerster, M., V.M. Mishin, P. Stauning, J. Watermann, T.I. Saifudinova and A.D. Bazarzhapov, "Plasma convection in the Earth's magnetosphere and ionosphere during substorms," *Adv. Space Res.*, V. 38, 1750–1754, 2006.
- Hanuse, C., J.C. Cerisier, F. Auchere, K. Bocchialini, S. Bruinsma, N. Cornilleau-Wehrin, N. Jakowski, C. Lathuiliere, M. Menvielle, J.-J. Valette, N. Vilmer, J. Watermann and P. Yaya, "From the Sun to the Earth: Impact of the 27-28 May 2003 solar events on the magnetosphere, ionosphere and thermosphere," *Ann. Geophys.*, V.24, 129–151, 2006.
- Hecht, J.H., D.J. Strickland, and M.G. Conde, "The application of ground-based optical techniques for inferring electron energy deposition and composition change during auroral precipitation events," *J. Atmos. Solar-Terr. Phys.*, 68, 13, 1502–1519, doi:10.1016/j.jastp.2005.06.022, 2006.
- Ignaccolo, M., T. Farges, A. Mika, T.H. Allin, O. Chanrion, E. Blanc, T. Neubert, A.C. Fraser-Smith, and M. Füllekrug, "The planetary rate of sprite events," *Geophys. Res. Lett.*, 33, L11808, doi:10.1029/2005GL025502, 2006.
- Janches, D., C.J. Heinselman, J.L. Chau, A. Chandran, and R. Woodman, "Modeling the global micrometeor input function in the upper atmosphere observed by high power and large aperture radars," *J. Geophys. Res.*, 111, A07317, doi:10.1029/2006JA011628, 2006.
- Kwak, Y.-S., B.-H. Ahn, B.A. Emery, J.P. Thayer, M. McCready, J.F. Watermann, "Electrodynamical characteristics of the polar ionosphere over the auroral polar cap regions based on incoherent scatter radar measurements," *J. Atmos. Solar-Terr. Phys.*, doi:10/1016/j.jastp.2006.02.006, 2006.
- Meriwether, J.W., "Studies of thermospheric dynamics with a Fabry-Perot interferometer network: A review," *J. Atmos. Solar-Terr. Phys.*, 68, 1576–1589, doi:10.1016/j.jastp.2005.11.014, 2006.
- Mendillo, M., P. Withers, D. Hinson, H. Rishbeth and B.W. Reinisch, "Effects of solar flares upon the ionosphere of Mars," *Science*, 311(5764), 1135–1138, 2006.

- Milan, S.E., J.A. Wild, B. Hubert, C.M. Carr, E.A. Lucek, J.M. Bosqued, J.F. Watermann and J.A. Slavin, "Flux closure during a substorm observed by Cluster, Double Star, IMAGE FUV, SuperDARN and Greenland magnetometers," *Ann. Geophys.*, V.24, 751–767, 2006.
- Milikh, G.M., L.P. Goncharenko, Y.S. Dimant, J.P. Thayer, and M.A. McCready, "Anomalous electron heating and its effect on the electron density in the auroral electrojet," *Geophys. Res. Lett.*, 33, L13809, doi:10.1029/2006GL026530, 2006.
- Pallamraju, D., and S. Chakrabarti, "Contributions of imaging Echelle spectrographs to daytime optical aeronomy," *J. Atmos. Solar-Terr. Phys.*, 68, 13, 1459–1471, doi:10.1016/j.jastp.2005.05.013, 2006.
- Palmroth, M., P. Janhunen, G. Germany, D. Lummerzheim, K. Liou, D.N. Baker, C. Barth, A.T. Weatherwax and J. Watermann, "Precipitation and total power consumption in the ionosphere: Global MHD simulation results compared with Polar and SNOE observations," *Ann. Geophys.*, V.24, 861–872, 2006.
- Sandholt, P.E., C.J. Farrugia, "Spatiotemporal structure of the reconnecting magnetosphere under B_y -dominated interplanetary magnetic cloud conditions," *J. Geophys. Res.*, 111, A10209, doi:10.1029/2005JA011514, 2006.
- Simms, L.E., M.J. Engebretson, J.L. Posch, and W.J. Hughes, "Effects of the equatorward auroral boundary location and solar wind parameters on Pc5 activity at auroral zone stations: A multiple regression analysis," *J. Geophys. Res.*, 111, A10217, doi:10.1029/2005JA011587, 2006.
- Thayer, J.P., and W. Pan, "Lidar observations of sodium density depletions in the presence of polar mesospheric clouds," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2005.08.012, 2006.
- Watermann, J., O. Rasmussen, P. Stauning and H. Gleisner, "Temporal versus spatial geomagnetic variations along the west coast of Greenland," *Adv. Space Res.*, V.37, 1163–1168, 2006.
- Yin, P., C. Mitchell and G. Bust, "Observations of the F region height redistribution in the storm-time ionosphere over Europe and the USA using GPS imaging," *Geophys. Res. Lett.*, 33, L18803, doi:10.1029/2006GL027125, 2006.
- Zheng, Y., A.T.Y. Lui, I.R. Mann, K. Takahashi, J. Watermann, S.-H. Chen, I.J. Rae, T. Mukai, C.T. Russell, A. Balogh, R.E. Pfaff and H. Reme, "Coordinated observation of the field line resonance in the mid-tail," *Ann. Geophys.*, V.24, 707–723, 2006.

2005

- Arnoldy, R.L., M.J. Engebretson, R.E. Denton, J.L. Posch, M.R. Lessard, N.C. Maynard, D.M. Ober, C.J. Farrugia, C.T. Russell, J.D. Scudder, R.B. Torbert, S.-H. Chen, T.E. Moore, "Pc 1 waves and associated unstable distributions of magnetospheric protons observed during a solar wind pressure pulse," *J. Geophys. Res.*, 110, A07229, doi:10.1029/2005JA011041, 2005.
- Bedej, D.F., B.J. Watkins, C.J. Heinselman, R.L. Zellman, and E.M. Jakes, "Observation of the horizontal drift of thin metallic ion layers over Sondrestrom," *Geophys. Res. Lett.*, Vol. 32, L01102, doi:10.1029/2004GL021600, 2005.
- Bjerke, J.W., A. Elvebakk, E. Dominguez, A. Dahlback, "Seasonal trends in usnic acid concentrations of Arctic, alpine and Patagonian populations of the lichen *Flavocetraria nivalis*," *Phytochemistry*, Volume 66, Issue 3, 337–344, doi:10.1016/j.phytochem.2004.12.007, February 2005.

- Christensen, T., B.M. Knudsen, M. Streibel, S.B. Andersen, A. Benesova, G. Braathen, H. Claude, J. Davies, H. De Backer, H. Dier, V. Dorokhov, M. Gerding, M. Gil, B. Henchoz, H. Kelder, R. Kivi, E. Kyrö, Z. Litynska, D. Moore, G. Peters, P. Skrivankova, R. Stübi, T. Turunen, G. Vaughan, P. Viatte, A. F. Vik, P. von der Gathen, and I. Zaitcev, "Vortex-averaged Arctic ozone depletion in the winter 2002/2003," *Atmos. Chem. Phys.*, 5, 131–138, 2005.
- Doe, R.A., J.P. Thayer, and S.C. Solomon, "Incoherent scatter radar measurements and modeling of high-latitude solar photoionization," *J. Geophys. Res.*, 110, A10303, doi:10.1029/2005JA011129, 2005.
- Draper, N.C., M. Lester, S.W.H. Cowley, J.A. Wild, S.E. Milan, G. Provan, A. Grocott, A.N. Fazakerley, A. Lahiff, J.A. Davies, J.-M. Bosqued, J.P. Dewhurst, R. Nakamura, C.J. Owen, J. Watermann, M.G. Henderson, H.J. Singer and E. Donovan, "Cluster magnetotail observations of a tailward-traveling plasmoid at substorm expansion phase onset and field-aligned currents in the plasmashet boundary layer," *Ann. Geophys.*, V.23, 3667–3683, 2005.
- Foster, J.C., A.J. Coster, P.J. Erickson, J.M. Holt, F.D. Lind, W. Rideout, M. McCready, A. van Eyken, R.J. Barnes, R.A. Greenwald, F.J. Rich, "Multiradar observations of the polar tongue of ionization," *J. Geophys. Res.*, 110, A09S31, doi:10.1029/2004JA010928, 2005.
- Fromm, M., R. Bevilacqua, R. Servranckx, J. Rosen, J.P. Thayer, J. Herman, and D. Larko, "Pyro-cumulonimbus injection of smoke to the stratosphere: Observations and impact of a super blowup in northwestern Canada on 3–4 August 1998," *J. Geophys. Res.*, 110, D08205, doi:10.1029/2004JD005350, 2005.
- Fromm, M., R. Bevilacqua, R. Servranckx, J. Rosen, J.P. Thayer, J. Herman, and D. Larko, "Correction to 'Pyro-cumulonimbus injection of smoke to the stratosphere: Observations and impact of a super blowup in northwestern Canada on 3–4 August 1998,'" *J. Geophys. Res.*, 110, D12202, doi:10.1029/2005JD006171, 2005.
- Goncharenko, L., J.E. Salah, A. van Eyken, V. Howells, J.P. Thayer, V.I. Taran, B. Shpynev, Q. Zhou, J. Chau, "Observations of the April 2002 Geomagnetic Storm by the Global Network of Incoherent Scatter Radars," *Ann. Geophys.*, V. 23, 163–181, 2005.
- Holmes, J.M., M. Conde, C. Deehr, and D. Lummerzheim, "Morphology of aurorae in 557.7-nm Doppler Temperatures," *Geophys. Res. Lett.*, Vol. 32, L02103, doi:10.1029/2004GL021553, 2005.
- Huang, C.S., J.C. Foster, L.P. Goncharenko, P.J. Erickson, W. Rideout and A.J. Coster, "Strong positive phase of ionospheric storms observed by the Millstone Hill incoherent scatter radar and global GPS network," *J. Geophys. Res.*, 110, A06303, doi:10.1029/2004JA010865, 2005.
- Kersley, L., S.E. Pryse, M.H. Denton, G. Bust, E. Fremouw, J. Secan, N. Jakowski, and G.J. Bailey, "Radio tomographic imaging of the northern high-latitude ionosphere on a wide geographic scale," *Radio Sci.*, 40, RS5003, doi:10.1029/2004RS003103, 2005.
- Kozyreva, O.V., N.G. Kleimenova, and J. Watermann, "Pc5 geomagnetic pulsations under a high dynamic pressure of the solar wind during the initial phase of the magnetic storm (April 16, 1999)," *Geomagn. Aeron.*, Vol. 45(5), 577–587, 2005.
- Middleton, H.R., S.E. Pryse, L. Kersley, G.S. Bust, E.J. Fremouw, J.A. Secan, and W.F. Denig, "Evidence for the tongue of ionization under northward interplanetary magnetic field conditions," *J. Geophys. Res.*, 110, A07301, doi:10.1029/2004JA010800, 2005.

- Mishin, V.M., M. Foerster, A.D. Bazarzhapov, T.I. Saifudinova, Y.A. Karavaev, P. Stauning, J. Watermann, V. Golovkov, and S. Solovyev, "Space weather parameters computed on the basis of the magnetogram inversion technique," *Chin. J. Space Sci.*, Vol. 25(5), 436–446, 2005.
- Oyama, S., B.J. Watkins, S. Maeda, and J. Watermann, "Application of a new beam configuration to estimate lower thermospheric vertical velocities at high latitudes with mono-static incoherent scatter radars," *Radio Sci.*, 40, RS4005, doi:10.1029/2004RS003205, 2005.
- Oyama, S., B.J. Watkins, S. Nozawa, S. Maeda, and M. Conde, "Vertical ion motions observed with incoherent-scatter radars in the polar lower ionosphere," *J. Geophys. Res.*, 110, A04302, doi:10.1029/2004JA010705, 2005.
- Palmroth, M., P. Janhunen, T.I. Pulkkinen, A. Aksnes, G. Lu, N. Ostgaard, J. Watermann, G.D. Reeves and G.A. Germany, "Assessment of ionospheric Joule heating by GUMICS-4 MHD simulation, AMIE, and satellite-based statistics: Toward a synthesis," *Ann. Geophys.*, V.23, 2051–2068, 2005.
- Semeter, J., C.J. Heinselman, G.G. Sivjee, H.U. Frey, and J.W. Bonnell, "Ionospheric response to wave-accelerated electrons at the poleward auroral boundary," *J. Geophys. Res.*, 110, A11310, doi:10.1029/2005JA011226, 2005.
- Semeter, J., and F. Kamalabadi, "Determination of primary electron spectra from incoherent scatter radar measurements of the auroral E region," *Radio Science*, Vol. 40, RS2006, doi:10.1029/2004RS003042, 2005.
- Thayer, J.P., and Thomas, G.E., "Foreword: Special issue on phenomena of the summertime mesosphere," *J. Atmos. Solar-Terr. Phys.*, doi:10.1016/j.jastp.2005.08.001, 2005.
- Zhang, S.-R., J.M. Holt, A.P. van Eyken, M. McCready, C. Amory-Mazaudier, S. Fukao, and M. Sulzer, "Ionospheric local model and climatology from long-term databases of multiple incoherent scatter radars," *Geophys. Res. Lett.*, 32, L21012, doi:10.1029/2005GL023603, October 2005.

2004

- Bust, G.S., T.W. Garner and T.L. Gaussiran II, "Ionospheric Data Assimilation Three Dimensional (IDA3D): A New Global, Multi-Sensor, Three Dimensional Electron Density Specification Algorithm," *J. Geophys. Res.*, Vol. 109, A11312, doi:10.1029/2003JA010234, 2004.
- Coker, C., G. S. Bust, R. A. Doe, T. L. Gaussiran II, "High-latitude plasma structure and scintillation," *Radio Science*, 39, RS1S15, doi:10.1029/2002RS002833, 2004.
- Darbyshire, F.A., T.B. Larsen, K. Mosegaard, T. Dahl-Jensen, Ó. Gudmundsson, T. Bach, S. Gregersen, H.A. Pedersen, and W. Hanka, "A first detailed look at the Greenland lithosphere and upper mantle, using Rayleigh wave tomography," *Geophysical Journal International*, 158: 267–286. doi:10.1111/j.1365-246X.2004.02316.x., 2004.
- Gerrard, A.J., T.J. Kane, J.P. Thayer and S.D. Eckermann, "Concerning the upper stratospheric gravity wave and mesospheric cloud relationship over Sondrestrom, Greenland," *J. Atmos. Solar-Terr. Phys.*, Vol. 66, Issues 3-4, 229–240, February–March 2004.
- Gerrard, A.J., T.J. Kane, S.D. Eckermann, and J.P. Thayer, "Gravity waves and mesospheric clouds in the summer middle atmosphere: A comparison of lidar measurements and ray modeling of gravity waves over Sondrestrom, Greenland," *J. Geophys. Res.*, 109, D10103, doi:10.1029/2002JD002783, 2004.

- Keckhut, P., S. McDermid, D. Swart, T. McGee, S. Godin-Beekmann, A. Adriani, J. Barnes, J.-L. Baray, H. Bencherif, H. Claude, A.G. di Sarra, G. Fiocco, G. Hansen, A. Hauchecorne, T. Leblanc, C.H. Lee, S. Pal, G. Megie, H. Nakane, R. Neuber, W. Steinbrecht, and J. Thayer, "Review of ozone and temperature lidar validations performed within the framework of the Network for the Detection of Stratospheric Change," *J. Environ. Monit.*, 6 (9), 721–733, doi:10.1039/b404256e, 2004.
- Khotyaintsev, Y., S. Buchert, K. Stasiewicz, A. Vaivads, S. Savin, V.O. Papitashvili, C.J. Farrugia, B. Popielawska, Y.-K. Tung, "Transient reconnection in the cusp during strongly negative IMF By," *J. Geophys. Res.*, 109, A04204, doi:10.1029/2003JA009908, 2004.
- Moretto, T., D.G. Sibeck and J. Watermann, "Occurrence statistics of magnetic impulsive events," *Ann. Geophys.*, V.22, 585–602, 2004.
- Oyama, S., C. Lathuillere, S. Maeda, B.J. Watkins, "Summer-winter dependences of day-night differences in the ion temperature in the polar upper *F* region," *Geophys. Res. Lett.*, 31, L05806, doi:10.1029/2003GL018820, 2004.
- Pallamraju, D., S. Chakrabarti, R. Doe, and T. Pedersen, "First ground-based OI 630 nm optical measurements of daytime cusplike and F-region auroral precipitation," *Geophys. Res. Lett.*, 10.1029/2003GL019173, 2004.
- Ridley, A.J. and E.A. Kihn, "Polar cap index comparisons with AMIE cross polar cap potential, electric field, and polar cap area," *Geophys. Res. Lett.*, 31, L07801, doi:10.1029/2003GL019113, 2004.
- Thayer, J.P., and J. Semeter, "The convergence of magnetospheric energy flux in the polar atmosphere," *J. Atmos. Solar-Terr. Phys.*, Vol. 66, 10, 805–822, doi:10.1016/j.jastp.2004.01.035, 2004.
- Watermann, J., H. Lühr, K. Schlegel, P. Stauning, J.P. Thayer, F. Christiansen, and P.T. Newell, "The low-altitude cusp: Multi-point observations during the February 2002 SIRCUS campaign," in *Earth Observation with CHAMP, Results from Three Years in Orbit*, C. Reigber, H. Luehr, P. Schwintzer, J. Wickert, Eds., 375–380, Springer-Verlag, Berlin Heidelberg New York, 2004.
- Zhang, S.P., J.P. Thayer, R.G. Roble, J.E. Salah, G.G. Sheperd, L.P. Goncharenko, Q.H. Zhou, "Latitudinal variations of neutral wind structures in the E-region for the March equinox period," *J. Atmos. Solar-Terr. Phys.*, Vol. 66, Issue 1, 105–117, January 2004.

2003

- Blanchard, G.T, C.L. Ellington, and K.B. Baker, "Comparison of dayside magnetic separatrix signatures in HF and incoherent scatter radar data," *J. Geophys. Res.*, 108(A12), 1456, doi:10.1029/2003JA009910, 2003.
- Chrissan, D.A., and A.C. Fraser-Smith, "A Clustering Poisson model for characterizing the interarrival times of sferics," *Radio Sci.*, 38(4), 1078, doi:10.1029/2002RS002693, 2003.
- Christensen, T., N. Østgaard, T. J. Rosenberg, D.L. Detrick, G.A. Germany, and P. Stauning, "Conjugate high-intensity energetic electron precipitation at high latitude," *Ann. Geophys.*, Vol. 21: 1443–1455, 2003.
- Gerding, M., G. Baumgarten, U. Blum, J.P. Thayer, K. H. Fricke, R. Neuber, J. Fiedler, "Observations of an unusual mid-stratospheric aerosol layer in the Arctic: Possible sources and implications for polar vortex dynamics," *Ann. Geophys.*, Vol. 21, Issue 4, 1057–1069, 2003.

- Huang, C., J.C. Foster, G.D. Reeves, J. Watermann, J.H. Sastri, K. Yumoto, and P. Song, "Global magnetospheric-ionospheric oscillations initiated by a solar wind pressure impulse," *J. Geophys. Res.*, 108(A6), 1232, doi:10.1029/2002JA009465, 2003.
- Liu, A.Z., and G.R. Swenson, "A modeling study of O₂ and OH airglow perturbations induced by atmospheric gravity waves," *J. Geophys. Res.*, 108(D4): 4151, doi:10.1029/2002JD002474, 2003.
- Kelley, M.C., J.J. Makela, J.L. Chau, and M.J. Nicolls, "Penetration of the solar wind electric field into the magnetosphere/ionosphere system," *Geophys. Res. Lett.*, Vol. 30, doi:10.1029/2002GL016321, 2003.
- Martines-Bedenko, V.A., V.A. Pilipenko, V.O. Papitashvili, M.J. Engebretson, J. Watermann, and P.T. Newell, "Correspondence between ULF activity, field-aligned currents, and dayside magnetospheric regions," *Int. J. Geomagn. Aeron.*, Vol. 4, No. 2, 141–151, 2003.
- Petrov, V.G., V. Papitashvili, and C.R. Clauer, "Rapid reconstruction of electric potentials over an incoherent scatter radar field-of-view," *Earth Planets Space*, 55, 473-481, 2003.
- Semeter, J., C.J. Heinselman, J.P. Thayer, R.A. Doe, and H.U. Frey, "Ion upflow enhanced by drifting F-region plasma structure on the nightside polar cap boundary," *Geophys. Res. Lett.*, Vol. 30, No. 22, 2139, doi:10.1029/2003GL017747, 2003.
- Semeter, J., "Critical comparison of OII (732-733nm), OI (630nm), and N₂ (1PG) emissions in auroral rays," *Geophys. Res. Lett.*, Vol. 30, No. 5, 1225, doi:10.1029/2002GL015828, 2003.
- Schunk, R.W., L. Scherliess and J.J. Sojka, "Recent approaches to modeling ionospheric weather," *J. Atmos. Solar-Terr. Phys.*, 31(4) 819-828, doi:[10.1016/S0273-1177\(02\)00791-3](https://doi.org/10.1016/S0273-1177(02)00791-3), 2003.
- Tang, J., F. Kamalabadi, L.G. Rumsey, and G.R. Swenson, "Point-source suppression for atmospheric wave extraction from airglow imaging measurements," *IEEE Trans. on Geoscience & Remote Sensing* 41(1) 146–152, 2003.
- Thayer, J.P., G. E. Thomas, F.-J. Lübken, "Foreword: Layered phenomena in the mesopause region," *J. Geophys. Res.*, 108(D8), 8434, doi:10.1029/2002JD003295, 2003.
- Thayer, J.P., M. Rapp, A. J. Gerrard, E. Gudmundsson, T. J. Kane, "Gravity Wave Influences on Arctic Mesospheric Clouds as determined by a Rayleigh Lidar at Sondrestrom, Greenland," *J. Geophys. Res.*, 108(D8), 8449, doi:10.1029/2002JD002363, 2003.
- Toivanen, P.K., D.N. Baker, W.K. Peterson, H.J. Singer, J. Watermann, J.R. Wygant, C.T. Russell, and C.A. Kletzing, "Polar observations of transverse magnetic pulsations initiated at substorm onset in the high-latitude plasma sheet," *J. Geophys. Res.*, 108(A7), 1267, doi:10.1029/2001JA009141, 2003.
- Watermann, J., F. Christiansen, V. Popov, P. Stauning, and O. Rasmussen, "Field-aligned currents inferred from low-altitude earth-orbiting satellites and ionospheric currents inferred from ground-based magnetometers—do they render consistent results?," *First CHAMP Mission Results for Gravity, Magnetic and Atmospheric Studies*, C. Reigber, H. Luehr, P. Schwintzer, Eds., Springer-Verlag, Berlin/Heidelberg, 2003.
- Weimer, D.R., D.M. Ober, N.C. Maynard, M.R. Collier, D.J. McComas, N.F. Ness, C.W. Smith, and J. Watermann, "Predicting IMF propagation delay times using the minimum variance technique," *J. Geophys. Res.*, 108(A1), 1026, doi:10.1029/2002JA009405, 2003.

Zhang, S.P., J.E. Salah, N. Mitchell, W. Singer, Y. Murayama, R.R. Clark, A. van Eyken, and J.P. Thayer, "Responses of the mesospheric wind at high latitudes to the April 2002 space storm," *Geophys. Res. Lett.* 30, 23, 2225, doi:10.1029/2003GL018521, 2003.

2002

Amm, O., M.J. Engebretson, T. Hughes, L. Newitt, A. Viljanen, and J. Watermann, "A travelling convection vortex event study: Instantaneous ionospheric equivalent currents, estimation of field-aligned currents, and the role of induced currents," *J. Geophys. Res.*, Vol. 107(A11), 10.1029/2002JA009472, 2002.

Clauer, C.R., and V.G. Petrov, "A statistical investigation of traveling convection vortices observed by the west coast Greenland magnetometer chain," *J. Geophys. Res.*, 107(A7), 10.1029/2001JA000228, 2002.

Gerrard, A.J., T.J. Kane, J. P. Thayer, T.J. Duck, J. Whiteway, "Synoptic-scale study of the arctic polar vortex's influence on the middle atmosphere," *J. Geophys. Res.*, 107 (D16), doi:10.1029/2001JD000681, pp. ACL1.1–ACL1.15, 2002.

Gerrard, A.J., J.P. Thayer, and T.J. Kane, "Mesospheric clouds and the duality of gravity waves," *Eos Transactions of the American Geophysical Union*, 83(43), 488, 2002.

Grocott, A., S.W.H. Cowley, J.B. Sigwath, J.F. Watermann, and T.K. Yeoman, "Excitation of twin-vortex flow in the nightside high-latitude ionosphere during an isolated substorm," *Ann. Geophys.*, Vol. 20, 1577–1601, 2002.

Kataoka, R., H. Fukunishi, L.J. Lanzerotti, T.J. Rosenberg, A.T. Weatherwax, M.J. Engebretson, and J. Watermann, "Traveling convection vortices induced by solar wind tangential discontinuities," *J. Geophys. Res.*, 107(A12), 10.1029/2002JA009459, 2002.

Korotova, G.I., D.G. Sibeck, H.J. Singer, and T.J. Rosenberg, "Tracking transient events through geosynchronous orbit and in the high-latitude ionosphere," *J. Geophys. Res.*, 107(A11), 1345, doi:10.1029/2002JA009477, 2002.

LaBelle, J., and R.A. Treumann, "Auroral radio emissions, 1. Hisses, roars and bursts," *Space Sci. Rev.*, 101, 295, 2002.

Lu, G., T.E. Holzer, D. Lummerzheim, J.M. Ruohoniemi, P. Stauning, O. Troshichev, P.T. Newell, M. Brittnacher, and G. Parks, "Ionospheric response to the interplanetary magnetic field southward turning: Fast onset and slow reconfiguration," *J. Geophys. Res.*, 107(A8), 1153, doi:10.1029/2001JA000324, 2002.

Lyons, L.R., E. Zesta, Y. Xu, E.R. Sánchez, J.C. Samson, G.D. Reeves, J.M. Ruohoniemi, and J.B. Sigwath, "Auroral poleward boundary intensifications and tail bursty flows: A manifestation of a large-scale ULF oscillation," *J. Geophys. Res.*, Vol. 107, No. A11, 1352, doi:10.1029/2001JA000242, 2002.

Moretto, T., M. Hesse, A. Yahnin, A. Ieda, D. Murr, and J.F. Watermann, "Magnetospheric signature of an ionospheric Travelling Convection Vortex event," *J. Geophys. Res.*, 107, A6, 1029, 2002.

Murr, D.L., W.J. Hughes, A.S. Rodger, E. Zesta, H.U. Frey, and A.T. Weatherwax, "Conjugate observations of traveling convection vortices: The field-aligned current system," *J. Geophys. Res.*, 107(A10), 1306, doi:10.1029/2002JA009456, 2002.

- Nishitani, J., T. Ogawa, N. Sato, H. Yamagishi, M. Pinnock, J.-P. Villain, G. Sofko, and O. Trochichev, "A study of the dusk convection cell's response to an IMF southward turning," *J. Geophys. Res.*, 107(A3), 10.1029/2001JA900095, 2002.
- Semeter, J., and R. Doe, "On the proper interpretation of ionospheric conductance estimated through satellite photometry," *J. Geophys. Res.* 107 (A8), 10.1029/2001JA9101, 2002.
- Takeuchi, T., T. Araki, A. Viljanen, and J. Watermann, "Geomagnetic negative sudden impulses: Interplanetary causes and polarization distribution," *J. Geophys Res.*, Vol. 107(A7), 10.1029/2001JA000152, 2002.
- Vennerstrøm, S., T. Moretto, N. Olsen, E. Friis-Christensen, A.M. Stampe, and J. Watermann, "Field-aligned currents in the dayside cusp and polar cap region during northward IMF," *J. Geophys. Res.*, Vol. 107(A8), 10.1029/2001JA009162, 2002.
- Watermann, J., P. Stauning, O. Rasmussen, V.O. Papitashvili, V.A. Popov, and J.P. Thayer, "Observation of field-aligned and ionospheric currents during space weather month, September 1999," *Adv. Space Res.*, Vol. 30, No. 10, 2203–2208, 2002.
- Watermann, J., G.S. Bust, J.P. Thayer, T. Neubert, and C. Coker, "Mapping plasma structures in the high-latitude ionosphere using beacon satellite, incoherent scatter radar and ground-based magnetometer observations," *Ann. Geophys.*, 45, 1, 117–189, 2002.
- Zhou, X.-Y., B.T. Tsurutani, H.U. Frey, J.F. Watermann, D.G. Sibeck, S.B. Mende, and J.K. Arballo, "Dawn/Dusk Auroras and Geomagnetic Fluctuations: Ionospheric Effects of Intense Solar Wind Ram Pressure," in *Earth's Low-Latitude Boundary Layer*, Geophysical Monograph Series, Volume 133, 361–370, 2002.

2001

- Bedey, D.F., and B.J. Watkins, "Simultaneous observations of thin ion layers and the ionospheric electric field over Sondrestrom," *J. Geophys. Res.*, 106, A5, P. 8169, 2001.
- Blanchard, G.T., C.L. Ellington, L.R. Lyons, and F.J. Rich, "Incoherent scatter radar identification of the dayside magnetic separatrix and measurement of magnetic reconnection," *J. Geophys. Res.*, 106(A5), 8185–8196, 2001.
- Doe, R.A., J.D. Kelly, and E.R. Sanchez, "Observations of persistent dayside F-region electron temperature enhancements associated with soft magnetosheathlike precipitation," *J. Geophys. Res.*, 106, 3615, 2001.
- Gerrard, A.J., T.J. Kane, J.P. Thayer, C.S. Ruf, and R.L. Collins, "Consideration of non-Poisson distributions for Lidar applications," *Applied Optics*, Vol. 40, No. 9, 1488–1492, 2001.
- Huang, C.-S., G.J. Sofko, A.V. Kustov, J.W. MacDougall, R.A. Greenwald, J.M. Ruohoniemi, J.C. Foster, J.P. Villain, M. Lester, J. Watermann, V.O. Papitashvili, and W.J. Hughes, "Long-period magnetospheric-ionospheric perturbations during northward interplanetary magnetic field," *J. Geophys. Res.*, Vol. 106, 13091–13104, 2001.
- Hughes, J.M., and J. LaBelle, "First observations of flickering auroral roar," *Geophys. Res. Lett.*, 28, 123, 2001.

- Hughes, J.M., J. LaBelle, and J. Watermann, "Statistical and case studies of $2f_{ce}$ auroral roar observed with a medium-frequency interferometer," *J. Geophys. Res.*, 106, 21147, 2001.
- Hughes, J.M., and J. LaBelle, "Plasma conditions in auroral roar source regions inferred from radio and radar observations," *J. Geophys. Res.*, 106, 21157, 2001.
- Kataoka, R., H. Fukunishi, L.J. Lanzerotti, C.G. MacLennan, H.U. Frey, S.B., Mende, J.H. Doolittle, T.J. Rosenberg, and A.T. Weatherwax, "Magnetic impulse event: A detailed case study of extended ground and space observations," *J. Geophys. Res.*, Vol. 106, 25873–25889, 2001.
- Kauristie, K., T.A. Pulkkinen, O. Amm, A. Viljanen, M. Syrjasuo, P. Janhunen, S. Massetti, S. Orsini, M. Candidi, J. Watermann, E. Donovan, P. Prikryl, I.R. Mann, P. Eglitis, C. Smith, W.F. Denig, H.J. Opgenoorth, M. Lockwood, M. Dunlop, A. Vaivads, M. Andre, "Ground-based and satellite observations of high-latitude auroral activity in the dusk sector of the auroral oval," *Ann. Geophys.*, Vol. 19, 1367–1398, 2001.
- Khan, H., S.W.H. Cowley, E. Kolesnikova, M. Lester, M.J. Brittnacher, T.J. Hughes, W.J. Hughes, W.S. Kurth, D.J. McComas, L. Newitt, C.J. Owen, G.D. Reeves, H.J. Singer, C.W. Smith, D.J. Southwood, and J.F. Watermann, "Observations of two complete substorm cycles during the Cassini Earth swing-by: Cassini magnetometer data in a global context," *J. Geophys. Res.*, Vol. 106, 30141–30176, 2001.
- Lam, M.M., and A.S. Rodger, "A case study test of Araki's physical model of geomagnetic sudden commencement," *J. Geophys. Res.*, Vol. 106, 13135–13144, 2001.
- Lockwood, M., H. Opgenoorth, A.P. van Eyken, A. Fazakerley, J.-M. Bosqued, W. Denig, J. Wild, C. Cully, R. Greenwald, G. Lu, O. Amm, H. Frey, A. Strømme, P. Prikryl, M.A. Hapgood, M.N. Wild, R. Stamper, M. Taylor, I. McCrea, K. Kauristie, T. Pulkkinen, F. Pitout, A. Balogh, M. Dunlop, H. Rème, R. Behlke, T. Hansen, G. Provan, P. Eglitis, S.K. Morley, D. Alcayde, P.-L. Blelly, J. Moen, E. Donovan, M. Engebretson, M. Lester, J. Watermann, M.F. Marcucci, "Coordinated Cluster, ground-based instrumentation and low-altitude satellite observations of transient poleward-moving events in the ionosphere and in the tail lobe," *Ann. Geophys.*, Vol. 19, 1589–1612, 2001.
- Lockwood, M., A. Fazakerley, H. Opgenoorth, J. Moen, A.P. van Eyken, M. Dunlop, J.-M. Bosqued, G. Lu, C. Cully, P. Eglitis, I.W. McCrea, M.A. Hapgood, M.N. Wild, R. Stamper, W. Denig, M. Taylor, J.A. Wild, G. Provan, O. Amm, K. Kauristie, T. Pulkkinen, A. Strømme, P. Prikryl, F. Pitout, A. Balogh, H. Rème, R. Behlke, T. Hansen, R. Greenwald, H. Frey, S.K. Morley, D. Alcayde, P.-L. Blelly, E. Donovan, M. Engebretson, M. Lester, J. Watermann, M.F. Marcucci, "Coordinated Cluster and ground-based instrument observations of transient changes in the magnetopause boundary layer during an interval of predominantly northward IMF: relation to reconnection pulses and FTE signatures," *Ann. Geophys.*, Vol. 19, 1613–1640, 2001.
- Lu, G., R.G. Roble, A.D. Richmond and B.A. Emery, "Coexistence of ionospheric positive and negative storm phases under northern winter conditions: A case study," *J. Geophys. Res.*, 106, 24493–24504, 2001.
- Lyatsky, W., L.L. Cogger, B. Jackel, A.M. Hamza, W.J. Hughes, D. Murr and O. Rasmussen, "Substorm development as observed by Interball UV imager and 2-D magnetic array," *J. Atmos. Solar-Terr. Phys.*, Vol. 73, No. 15, 1609–1621, [doi:10.1016/S1364-6826\(01\)00045-1](https://doi.org/10.1016/S1364-6826(01)00045-1), 2001.

- Milikh, G.M., Y.S. Dimant, X. Shao, P.N. Guzdar, A.S. Sharma, K. Papadopoulos, E.M. Burns, C.C. Goodrich, T.J. Rosenberg, A.T. Weatherwax, M.J. Wiltberger, J.G. Lyon and J.A. Fedder, "Modeling ionospheric absorption modified by anomalous heating during substorms," *Geophys. Res. Lett.*, 28(3), 487–490, 2001.
- Murr, D.L. and W.J. Hughes, "Reconfiguration timescales of ionospheric convection," *Geophys. Res. Lett.*, 28(11), 2145–2148, 2001.
- Opgenoorth, H.J., M. Lockwood, D. Alcayde, E. Donovan, M.J. Engebretson, A.P. van Eyken, K. Kauristie, M. Lester, J. Moen, J. Watermann, H. Alleyne, M. Andre, M.W. Dunlop, N. Cornilleau-Wehrlin, A. Masson, A. Fazerkerley, H. Rème, R. André, O. Amm, A. Balogh, R. Behlke, P.L. Blelly, H. Boholm, E. Borälrv, J.M. Bosqued, S. Buchert, M. Candidi, J.C. Cerisier, C. Cully, W.F. Denig, P. Eglitis, R.A. Greenwald, B. Jackal, J.D. Kelly, I. Krauklis, G. Lu, I.R. Mann, M.F. Marcucci, I.W. McCrea, M. Maksimovic, S. Massetti, P.M.E. Décréau, D.K. Milling, S. Orsini, F. Pitout, G. Provan, J.M. Ruohoniemi, J.C. Samson, J.J. Schott, F. Sedgemore-Schulthess, R. Stamper, P. Stauning, A Strömme, M. Taylor, A. Vaivads, J.P. Villain, I. Voronkov, J.A. Wild, and M. Wild, "Coordinated ground-based, low-altitude satellite and Cluster observations on global and local scales during a transient postnoon sector excursion of the magnetospheric cusp," *Ann. Geophys.* 19, European Geophysical Society, 1367–1398, 2001.
- Pallamraju, D., J. Baumgardner, S. Chakrabarti and T.R. Pedersen, "Simultaneous ground-based observations of an auroral arc in daytime OI 630.0nm emission and by Incoherent Scatter Radar," *J. Geophys. Res.* Vol. 106, 5543–5549, 2001.
- Pilipenko, V., J. Watermann, V. Popov, and V. Papitashvili, "Relationship between Auroral Electrojet and Pc5 ULF waves," *J. Atmos. Sol.-Terr. Phys.*, Vol. 63, 1545–1557, 2001.
- Popov, V.A., V.O. Papitashvili, and J.F. Watermann, "Modeling of equivalent ionospheric currents from meridian magnetometer chain data," *Earth Planets Space*, Vol. 53, 129–137, 2001.
- Sastri, J.H., T. Takeuchi, T. Araki, K. Yumoto, S. Tsunomura, H. Tachihara, H. Lühr, and J. Watermann, "Preliminary impulse (PI) of the geomagnetic storm sudden commencement of November 18, 1993," *J. Geophys. Res.*, Vol. 106, 3905–3918, 2001.
- Semeter, J., D. Lummerzheim, and G. Haerendel, "Simultaneous multispectral imaging of the discrete aurora," *J. Atmos. Sol. Terr. Phys.*, 63(18) 1981–1982, 2001.
- Stauning, P., F. Primdahl, J. Watermann, and O. Rasmussen, "IMF By-related cusp currents observed from the Ørsted satellite and from ground," *Geophys. Res. Lett.*, Vol. 28, 99–102, 2001.
- Wahr, J., T. vanDam, K. Larson, and O. Francis, "Geodetic measurements in Greenland and their implications," *J. Geophys. Res.*, 106, B8, 16567–16582, 2001.
- Wahr, J., T. vanDam, K. Larson, and O. Francis, "GPS measurements of vertical crustal motion in Greenland," *J. Geophys. Res.-Atmospheres*, 106, 33755–33760, 2001.
- Wang, W., T.L. Killeen, A.G. Burns, and B.W. Reinisch, "A real-time model-observation comparison of F₂ peak electron densities during the Upper Atmospheric Research Collaboratory campaign of October 1997," *J. Geophys. Res.*, 106(A10), 21077–21082, 2001.
- Xu, L., A.V. Kustov, J.P. Thayer, and M.A. McCready, "SuperDARN Convection and Sondrestrom plasma drift," *Ann. Geophys.*, 19, 749–759, 2001.

2000

- Borälöv, E., P. Eglitis, H.J. Opgenoorth, E. Donovan, G. Reeves, and P. Stauning, "The dawn and dusk electrojet response to substorm onset," *Ann. Geophys.*, 18, 1097–1107, 2000.
- Chrissan, D.A., and A.C. Fraser-Smith, "A Comparison of Low-Frequency Radio Noise Amplitude Probability Distribution Models," *Radio Science*, 35, 195–208, 2000.
- Crowley, G., A.J. Ridley, D. Deist, S. Wing, D.J. Knipp, B.A. Emery, J. Foster, R. Heelis, M. Hairston, and B.W. Reinisch, "Transformation of high-latitude ionospheric F region patches into blobs during the March 21, 1990, storm," *J. Geophys. Res.*, 105(A3), 5215–5230, 2000.
- Engebretson, M.J., R.K. Cobian, J.L. Posch, and R.L. Arnoldy, "A conjugate study of Pc 3-4 pulsations at cusp latitudes: Is there a clock angle effect?," *J. Geophys. Res.*, 105, 15965, 2000.
- Gerrard, A.J., T.J. Kane, J.P. Thayer, "Year-round temperature and wave measurements of the Arctic middle atmosphere for 1995–1998," Geophysical Monograph 123, Atmospheric Science across the Stratopause, AGU, 2000.
- Hecht, J.H., D.L. McKenzie, A.B. Christensen, D.J. Strickland, J.P. Thayer, J. Watermann, "Simultaneous observations of lower thermospheric composition change during moderate auroral activity from Kangerlussuaq and Narsarsuaq, Greenland," *J. Geophys. Res.*, Vol. 105, No. A12, 27109–27118, 2000.
- Heinselman, C.J., "Auroral effects on the gas phase chemistry of meteoric sodium," *J. Geophys. Res.*, 105, D10, 12181–12192, 2000.
- Huang, C., D. Murr, G.J. Sofko, W.J. Hughes, and T. Moretto, "Ionospheric convection response to changes of interplanetary magnetic field B_z component during strong B_y component," *J. Geophys. Res.*, 105(A3), 5231–5244, 2000.
- Hughes, J.M., J. LaBelle, M. Trimpi, "A medium frequency interferometer for studying auroral radio emissions," *Rev. Sci. Instr.*, Vol. 71, 3200, 2000.
- Korotova, G.I., M.G. Kivelson, D.G. Sibeck, T.A. Potemra, and P. Stauning, "Multipoint observations of global magnetospheric compressions," *J. Geophys. Res.*, 105(A10), 23293–23302, 2000.
- Moretto, T., A.J. Ridley, M.J. Engebretson, and O. Rasmussen, "High-Latitude ionospheric response to a sudden impulse event during northward IMF conditions," *J. Geophys. Res.*, 105, 2521, 2000.
- Papitashvili, V.O., C.R. Clauer, F. Christiansen, V.A. Pilipenko, V.A. Popov, O. Rasmussen, V.P. Suchdeo, and J.F. Watermann, "Geomagnetic disturbances at high latitudes during very low solar wind density event," *Geophys. Res. Lett.*, Vol. 27, 3785–3788, 2000.
- Pedersen, T.R., B.G. Fejer, R.A. Doe, and E.J. Weber, "An incoherent scatter radar technique for determining two-dimensional horizontal ionization structure in polar cap F-region patches," *J. Geophys. Res.*, 105, 10637, 2000.
- Pi, X., M. Mendillo, W.J. Hughes, M.J. Buonsanto, D.P. Sipler, J. Kelly, Q. Zhou, G. Lu, and T.J. Hughes, "Dynamical effects of geomagnetic storms and substorms in the middle-latitude ionosphere: An observational campaign," *J. Geophys. Res.*, Vol. 105, 7403–7417, 2000.
- Pilipenko, V. A., E. N. Fedorov, M. J. Engebretson, V. O. Papitashvili, and J. Watermann, "Poleward progressing quasi-periodic disturbances at cusp latitudes: The role of wave processes," *J. Geophys. Res.*, Vol. 105, 27569–27587, 2000.

- Richmond, A.D., and J.P. Thayer, "Ionospheric Electrodynamics: A tutorial," AGU Monograph on Magnetospheric Currents, 2000.
- Takeuchi, T., T. Araki, H. Luehr, O. Rasmussen, J. Watermann, D.K. Milling, I.R. Mann, K. Yumoto, K. Shiokawa, and T. Nagai, "Geomagnetic negative sudden impulse due to a magnetic cloud observed on May 13, 1995," *J. Geophys. Res.*, Vol. 105, 18835–18846, 2000.
- Thayer, J.P., "High latitude currents and their energy exchange with the ionosphere-thermosphere system," *J. Geophys. Res.*, Vol. 105, No. A10, 23015–23024, 2000.
- vanDam, T., K. Larson, J. Wahr, O. Francis, and S. Gross, "Using GPS and absolute gravity to observe ice mass changes in Greenland," *Transact. Am. Geophys. U. (EOS)*, 81, 421, 426–427, 2000.
- Watanabe, M., N. Sato, R.A. Greenwald, M. Pinnock, M.R. Hairston, R.L. Rairden, D.J. McEwen, "The ionospheric response to interplanetary magnetic field variations: Evidence for rapid global change and the role of preconditioning in the magnetosphere," *J. Geophys. Res.*, Vol. 105, No. A10, 22955–22977, October 2000.
- Watermann, J., and P. Stauning, "Space-time ambiguities in observations of the magnetospheric cusp: the need for small-scale multi-point magnetospheric measurements," *ESA SP-449*, 299–302, 2000.
- Yagova, N.V., V.A. Pilipenko, A.S. Rodger, V.O. Papitashvili, and J.F. Watermann, "Long period ULF activity at the polar cap preceding substorm," *ESA SP-443*, 603–606, 2000.

1999

- Ahn, B.-H., B.A. Emery, H.W. Kroehl, and Y. Kamide, "Climatological characteristics of the auroral ionosphere in terms of electric field and ionospheric conductance," *J. Geophys. Res.*, 104, 10031–10040, 1999.
- Aikio, A.T., V.A. Sergeev, M.A. Shukhtina, L.I. Vagina, V. Angelopoulos, and G.D. Reeves, "Characteristics of pseudobreakups and substorms observed in the ionosphere, at the geosynchronous orbit, and in the midtail," *J. Geophys. Res.*, 104, 12263–12287, 1999.
- Amm, O., M.J. Engebretson, R.A. Greenwald, H. Luehr, and T. Moretto, "Direct determination of IMF By-related cusp current systems, using SuperDARN radar and multiple ground magnetometer data: A link to theory on cusp origin," *J. Geophys. Res.*, 104, 17187–17198, 1999.
- Buonsanto, M.J., S.A. Gonzalez, G. Lu, B.W. Reinisch, and J.P. Thayer, "Coordinated incoherent scatter radar study of the January, 1997 storm," *J. Geophys. Res.*, Vol. 104, No. A11, 24625–24637, 1999.
- Buonsanto, M. J., S. Gonzales, X. Pi, J. M. Ruohoniemi, M. Sulzer, W. Swartz, J. P. Thayer, and D. N. Yuan, "Radar chain study of the May 1995 storm," *J. Atmos. Solar-Terr. Phys.*, Vol. 61, 233–248, 1999.
- Chao-Song, H., G.J. Sofko, D. Murr, W.J. Hughes, and T. Moretto, "High-latitude ionospheric convection during strong interplanetary magnetic field By," *Geophys. Res. Lett.*, 26, 405–408, 1999.
- Emery, B.A., C. Lathuillere, P.G. Richards, R.G. Roble, M.J. Buonsanto, D.J. Knipp, P. Wilkinson, D.P. Sipler and R. Niecejewski, "Time dependent thermospheric neutral response to the 2–11 November 1993 storm period," *J. Atmos. Solar Terr. Phys.*, 61, 329–350, 1999.

- Engebretson, M.J., D.L. Murr, W.J. Hughes, H. Luhr, T. Moretto, J.L. Posch, A.T. Weatherwax, T.J. Rosenberg, C.G. MacLennan, L.J. Lanzerotti, F. Marcucci, S. Dennis, G. Burns, J. Bitterly, and M. Bitterly, "A multipoint determination of the propagation velocity of a sudden commencement across the polar ionosphere," *J. Geophys. Res.*, 104, 22433–22451, 1999.
- Hecht, J.H., A.B. Christensen, D.J. Strickland, T. Majeed, R.L. Gattinger, and A. Vallance Jones, "A comparison between auroral particle characteristics and atmospheric composition inferred from analyzing optical emission measurements alone and in combination with incoherent scatter radar measurements," *J. Geophys. Res.*, 104, 33–44, 1999.
- Lockwood, M., and S.W.H. Cowley, Comment on "A statistical study of the ionospheric convection response to changing interplanetary magnetic field conditions using the assimilative mapping of ionospheric electrodynamics technique" by A.J. Ridley et al., *J. Geophys. Res.*, 104(A3), 4387–4391, doi:10.1029/1998JA900145, 1999.
- Ridley, A.J., G. Lu, C.R. Clauer, and V.O. Papitashvili, Reply [to "Comment on "A statistical study of the ionospheric convection response to changing interplanetary magnetic field conditions using the assimilative mapping of ionospheric electrodynamics technique" by A.J. Ridley et al."], *J. Geophys. Res.*, 104(A3), 4393–4396, doi:10.1029/1998JA900147, 1999.
- Sitar, R.J., and C.R. Clauer, "Ground magnetic response to sudden changes in the interplanetary magnetic field orientation," *J. Geophys. Res.*, 104, A12, 28343–28350, doi:10.1029/1999JA900391, 1999.
- Sivjee, G.G., D. Shen, J.-H. Yee, G.J. Romick, "Variations, with peak emission altitude, in auroral O₂ atmospheric (1,1)/(0,1) ratios and its relation to other auroral emissions," *J. Geophys. Res.*, Vol. 104, No. A12, 28003–28018, December 1999.
- Sivjee, G.G., "Polar thermospheric response to solar magnetic cloud/coronal mass ejection interactions with the magnetosphere," *J. Atmos. Sol. Terr. Phys.*, 61, 207–215, 1999.
- Slinker, S.P., J.A. Fedder, B.A. Emery, K.B. Baker, D. Lummerzheim, J.G. Lyon and F.J. Rich, "Comparison of global MHD simulations with AMIE simulations for the events of May 19–20, 1996," *J. Geophys. Res.*, 104, 28379–28395, 1999.
- Vennerstrøm, S., "Dayside magnetic ULF power at high latitudes: A possible long-term proxy for the solar wind velocity?," *J. Geophys. Res.*, 104, A5, 1999.
- Valladares, C.E., D. Alcayde, J.V. Rodriguez, J.M. Ruohoniemi, and A.P. van Eyken, "Observations of plasma density structures in association with the passage of traveling convection vortices and the occurrence of large plasma jets," *Ann. Geophys.*, 17, 1020–1039, 1999.
- Weatherwax, A.T., H.B. Vo, T.J. Rosenberg, S.B. Mende, H.U. Frey, L.J. Lanzerotti, and C.G. MacLennan, "A dayside ionospheric absorption perturbation in response to a large deformation of the magnetopause," *Geophys. Res. Lett.*, 26, 517–520, 1999.
- Won, Y.-I., R.J. Niciejewski, T.L. Killeen, R.M. Johnson, and B.Y. Lee, "Observations of high-latitude lower thermospheric winds from Thule Air Base and Søndre Strømfjord, Greenland," *J. Geophys. Res.*, 104(A1), 25–32, 1999.

1998

- Ahn, B.-H., B.A. Emery, H.W. Kroehl and Y. Kamide, "The average characteristics of the electric field and ionospheric conductance distributions over the auroral region," in: *SUBSTORMS-4*, S. Kokubun and Y. Kamide, Eds., Terra Scientific Publishing Company / Kluwer Academic Publishers, 695–698, 1998.
- Ahn, B.-H., A.D. Richmond, Y. Kamide, H.W. Kroehl, B.A. Emery, O. de la Beaujardiere, and S.-I. Akasofu, "An ionospheric conductance model based on ground magnetic disturbance data," *J. Geophys. Res.*, 103, 14769–14780, 1998.
- Arnoldy, R.L., J.L. Posch, M.J. Engebretson, H. Fukunishi, H.J. Singer, and T. Onsager, "Pi 1 magnetic pulsations in space and at high latitudes on the ground," *J. Geophys. Res.*, 103, 23581, 1998.
- Bedey, D.F., and B.J. Watkins, "Diurnal occurrence of thin metallic ion layers in the high-latitude ionosphere," *Geophys. Res. Lett.*, 25, 3767–3770, 1998.
- Fraser-Smith, A.C., and P.R. Bannister, "Reception of ELF signals at Antipodal Distances," *Radio Science*, 33, 83–88, 1998.
- Gerrard, A.J., T.J. Kane, and J.P. Thayer, "Noctilucent clouds and wave dynamics: Observations at Sondrestrom, Greenland," *Geophysical Research Letters*, Vol. 25, No. 15, 2817, 1998.
- Heinselman, C.J., J.P. Thayer, and B.J. Watkins, "A high-latitude observation of sporadic sodium and sporadic E layer formation," *Geophys. Res. Lett.* Vol. 25, No. 16, 3059, 1998.
- Hughes, J., and J. LaBelle, "The latitude dependence of auroral roar emissions," *J. Geophys. Res.*, 103, 14910, 1998.
- Knipp, D.J. and B.A. Emery, "A report on the community study of the early November 1993 geomagnetic storm," *Adv. Space Res.*, 22, No. 1, 41–54, 1998.
- Knipp, D.J., B.A. Emery, M. Engebretson, X. Li, A.H. McAllister, T. Mukai, S. Kokubun, G.D. Reeves, D. Evans, T. Obara, X. Pi, T. Rosenberg, A. Weatherwax, M.G. McHarg, F. Chun, K. Mosely, M. Codrescu, L. Lanzerotti, F.J. Rich, J. Sharber and P. Wilkinson, "An overview of the early November 1993 geomagnetic storm," *J. Geophys. Res.*, 103, 26197–26220, 1998.
- Lu, G., D.N. Baker, R.L. McPherron, C.J. Farrugia, D. Lummerzheim, J.M. Ruohoniemi, F.J. Rich, D.S. Evans, R.P. Lepping, M. Brittnacher, X. Li, R. Greenwald, G. Sofko, J. Villain, M. Lester, J. Thayer, T. Moretto, D. Milling, O. Troshichev, A. Zaitzev, V. Odintzov, G. Makarov, and K. Hayashi, "Global energy disposition during the January 1997 magnetic cloud event," *J. Geophys. Res.*, Vol. 103, A6, 11685–11694, 1998.
- Moretto, T., and A. Yahnin, "Mapping travelling convection vortex events with respect to energetic particle boundaries," *Ann. Geophys.*, 16, 891–899, 1998.
- Nilsson, H., S. Kirkwood, and T. Moretto, "Incoherent scatter radar observations of the cusp acceleration region and cusp field-aligned currents," *J. Geophys. Res.*, 103, A11, 26721, 1998.
- Nilsson, H., H.M. Yamauchi, T. Mukai, T. Yamamoto, and T. Moretto, "Observations of an enhanced convection flow channel for northward turning IMF," *Geophys. Res. Lett.*, 24, 3137, 1998.
- Pedersen, T.R., B.G. Fejer, R.A. Doe, and E.J. Weber, "Incoherent scatter radar observations of horizontal F region plasma structure over Sondrestrom, Greenland, during polar cap patch events," *Radio Sci.*, 33(6), 1847–1866, 1998.

- Pulkkinen, T.I., D.N. Baker, L.A. Frank, J.B. Sigwarth, H.J. Opgenoorth, R. Greenwald, E. Friis-Christensen, T. Mukai, R. Nakamura, H. Singer, G.D. Reeves, and M. Lester, "Two substorm intensifications compared: Onset expansion, and global consequences," *J. Geophys. Res.*, 103, 15–17, 1998.
- Ridley, A., T. Moretto, P. Ernstrom, and C.R. Clauer, "Global analysis of three travelling convection vortex events during the November 93 storm using the assimilative mapping of ionospheric electrodynamic technique," *J. Geophys. Res.*, 103, A11, 26349–26358, 1998.
- Sanchez, E. R., J.P. Thayer, J.D. Kelly, and R.A. Doe, "Energy transfer between the ionosphere and magnetosphere during the January 1997 CME event," *Geophys. Res. Lett.*, Vol. 25, 2597–2600, 1998.
- Sitar, R.J., J.B. Baker, C.R. Clauer, A.J. Ridley, J.A. Cumnock, V.O. Papitashvili, J. Spann, M.J. Brittner, and G.K. Parks, "Multi-instrument analysis of the ionospheric signatures of a hot flow anomaly occurring on July 24, 1996," *J. Geophys. Res.*, Vol. 103(A10), 23357–223372, doi: 10.1029/98JA01916, 1998.
- Shepherd, S.G., J. LaBelle, R.A. Doe, M.A. McCready, A.T. Weatherwax, "Ionospheric structure and the generation of auroral roar," *J. Geophys. Res.*, Vol. 103, No. A12, 29253–29266, December 1998.
- Stauning, P., "Substorm modelling based on observations of an intense high-latitude absorption surge event," *J. Geophys. Res.*, 103, 26433–26452, 1998.
- Stauning, P., "Ionospheric radiowave absorption processes in the dayside polar cap boundary regions," J. Moen, A. Egeland, and M. Lockwood (eds.), *Polar Cap Boundary Phenomena*, 233–254, Kluwer Academic Publishers, 1998.
- Steele, D.P., McEwen, D.J., Sivjee, G.G., "Ground-based optical observations from the north magnetic pole during the January 1997 magnetic cloud event," *Geophys. Res. Lett.*, 25, 14, 1998.
- Swenson, G.R., R.L. Rairden, S.C. Solomon, and S. Ananth, "Spectroscopic instrumentation for auroral studies," *Applied Optics*, 37, 5760, 1998.
- Thayer, J.P., "Radar measurements of the energy rates associated with the dynamic ionospheric load/generator," *Geophys. Res. Lett.*, Vol. 25, No. 4, 469–472, 1998.
- Thayer, J.P., "Height-resolved Joule heating rates in the high-latitude *E* region and the influence of neutral winds," *J. Geophys. Res.*, Vol. 103, No. A1, 471–487, 1998.
- Valladares, C.E., D.T. Decker, R. Sheehan, D.N. Anderson, T. Bullett, and B.W. Reinisch, "Formation of polar cap patches associated with north-to-south transitions of the interplanetary magnetic field," *J. Geophys. Res.*, 103(A7) 14657–14670, 1998.
- van Dam, T.M. and J. Wahr, "Modeling environment loading effects: a review," *Phys. Chem. Earth*, 23(9–10) 1077–1087, doi:[10.1016/S0079-1946\(98\)00147-5](https://doi.org/10.1016/S0079-1946(98)00147-5), 1998.
- Yoon, P.H., A.T. Weatherwax, T J. Rosenberg, J. LaBelle, and S.G. Shepherd, "Propagation of medium frequency (1–4 MHz) auroral radio waves to the ground via the Z-mode radio window," *J. Geophys. Res.*, 103(A12) 29267–29276, 1998.

1997

- Azeem, S.M.I., and R.M. Johnson, "Lower thermospheric neutral winds at Søndre Strømfjord: A seasonal analysis," *J. Geophys. Res.*, 102, A4, 7379–7397, 1997.
- Bedeý, D. F., and B. J. Watkins, "Large-scale transport of metallic ions and the occurrence of thin layers in the polar ionosphere," *J. Geophys. Res.*, 102, 9675–9681, 1997.
- Buonsanto, M.J., G. Bust, R. Clark, M. Codrescu, G. Crowley, B.A. Emery, T.J. Fuller-Rowell, G. Hoogeveen, A. Jacobson, D. Knipp, S. Maurits, P.G. Richards, J.R. Taylor and B.J. Watkins, "Recent results of the CEDAR storm study," *Adv. Space Res.*, Vol. 20, No. 9, 1655-1664, [doi:10.1016/S0273-1177\(97\)00569-3](https://doi.org/10.1016/S0273-1177(97)00569-3), 1997.
- Clauer, C.R., A.J. Ridley, R.J. Sitar, H.J. Singer, A.S. Rodger, E. Friis-Christensen, and V.O. Papitashvili, "Field line resonant pulsations associated with a strong dayside ionospheric shear convection flow reversal," *J. Geophys. Res.*, 102(A3), 4585-4596, doi: 10.1029/96JA02929, 1997.
- Cho, J.Y.N. and J. Röttger, "An updated review of polar mesosphere summer echoes: Observation, theory and their relationship to noctilucent clouds and subvisible aerosols," *J. Geophys. Res.*, 102, D2, 2001-2020, 1997.
- Doe, R. A., J. F. Vickrey, E. J. Weber, H. A. Gallagher, and S. B. Mende, "Ground-based signatures for the nightside polar cap boundary," *J. Geophys. Res.*, 102, 19989, 1997.
- Doe, R. A., J. D. Kelly, D. Lummerzheim, G. K. Parks, G. A. Germany, and J. Spann, "Initial comparison of POLAR UVI and Sondrestrom IS radar estimates for auroral energy flux," *Geophys. Res. Lett.*, 24, 999, 1997.
- Gerrard, A.J., T.J. Kane, D.D. Meisel, J.P. Thayer, and R.B. Kerr, "Investigation of a resonant lidar for measurement of ionospheric metastable helium," *J. Atmos. Solar-Terr. Phys.*, Vol. 59, No. 16, 2023–2034, 1997.
- Hecht, J.H., J.P. Thayer, D.J. Gutierrez, and D.L. McKenzie, "Multi-Instrument Zenith Observations of Noctilucent Clouds Over Greenland on July 30/31, 1995," *J. Geophys. Res.*, Vol. 102, No. D2, 1959–1970, 1997.
- Knipp, D. and B.A. Emery, "Mapping ionospheric substorm response," *Adv. Space Res.*, 20(4–5) 895–905, [doi:10.1016/S0273-1177\(97\)00497-3](https://doi.org/10.1016/S0273-1177(97)00497-3), 1997.
- LaBelle, J., S.G. Shepherd, and M.L. Trimpi, "Observations of auroral medium frequency burst emissions," *J. Geophys. Res.*, 102, 22221, 1997.
- Nishino, M., H. Yamagishi, P. Stauning, T.J. Rosenberg, and J.A. Holtet, "Location, spatial scale and motion of radio wave absorption in the cusp-latitude ionosphere observed by imaging riometers," *J. Atmos. Sol.-Terr. Phys.*, 59, 903–924, 1997.
- Palo, S.E., M.E. Hagen, C.E. Meek, R.A. Vincent, M.D. Burrage, C. McLandress, S.J. Franke, W.E. Ward, R.R. Clark, P. Hoffmann, R. Johnson, D. Kurschner, A.H. Manson, D. Murphy, T. Nakamura, Yu.I. Portnyagin, J.E. Salah, R. Schminder, W. Singer, T. Tsuda, T.S. Viridi, and Q. Zhou, "An intercomparison between the GSWM, UARS, and ground based radar observations: a study in January 1993," *Ann. Geophys.*, 15, 1123–1141, 1997.

- Ridley, A.J., G. Lu, C.R. Clauer, and V.O. Papitashvili, "Ionospheric convection during nonsteady interplanetary magnetic field conditions," *J. Geophys. Res.*, 102(A7), 14563–14579, doi:10.1029/97JA00940, 1997.
- Rodriguez, J.V., C.E. Valladares, K. Fukui, and H.A. Gallagher Jr., "Antisunward decay of polar cap arcs," *J. Geophys. Res.*, 102(A12), 27, 227–27, 247, 1997.
- Sivjee, G.G., and D. Shen, "Auroral optical emissions during the solar magnetic cloud event of October 1995," *J. Geophys. Res.*, 102, A4, 7431–7438, 1997.
- Taylor, J.R., M. Lester, T.K. Yeoman, B.A. Emery, D.J. Knipp, D. Orr, S.I. Solovveyev, T.J. Hughes, and H. Luhr, "The response of the magnetosphere to the passage of a coronal mass ejection on March 20-21, 1990," *Ann. Geophys.*, 15, 671–684, 1997.
- Thayer, J.P., N.B. Nielsen, R.E. Warren, C.J. Heinselman, and J. Sohn, "Rayleigh lidar system for middle atmosphere research in the arctic," *Opt. Eng.*, 36(7), 2045–2061, 1997.
- Troshichev, O.A., A.L. Kotikov, E.M. Shishkina, V.O. Papitashvili, C.R. Clauer, and E. Friis-Christensen, "DPY currents in the cusp/cleft region: A crucial role of southward interplanetary magnetic field," *J. Geophys. Res.*, 102(A3), 4777–4785, doi:10.1029/96JA03758, 1997.
- Zhu, L., R.W. Schunk and J.J. Sojka, "Polar cap arcs: a review," *J. Atmos. Solar-Terr. Phys.*, [Vol. 59, No. 10](#), 1087-1126, 1997.

1996

- Angelopoulos, V., F.V. Coroniti, C.F. Kennel, M.G. Kivelson, R.J. Walker, C.T. Russell, R.L. McPherron, E.R. Sanchez, C.-I. Meng, W. Baumjohann, G.D. Reeves, R.D. Belian, N. Sato, E. Friis-Christensen, P.R. Sutcliffe, K. Yumoto, T. Harris, "Multi-Point Analysis of Bursty Bulk Flow Events: I. April 11, 1985," *J. Geophys. Res.*, Vol. 101, A3, 4967, 1996.
- Arnoldy, R. L., M. J. Engebretson, J. L. Alford, R. E. Erlandson, and B. J. Anderson, "Magnetic impulse events and associated Pc 1 bursts at dayside high latitudes," *J. Geophys. Res.*, 101, 7793, 1996.
- Bedey, D. F., and B. J. Watkins, "Seasonal occurrence of thin metallic ion layers at high latitudes," *Geophys. Res. Lett.*, 23, 2789–2792, 1996.
- Blanchard, G.T., L.R. Lyons, O. de la Beaujardiere, R.A. Doe, and M. Mendillo, "Measurement of the Magnetotail Reconnection Rate," *J. Geophys. Res.*, Vol. 101, No. 15, 15265, 1996.
- Kagan, L., M.C. Kelley, R.A. Doe, "Ionospheric Electron Heating by Structured Electric Fields: Theory and Experiment," *J. Geophys. Res.*, Vol. 101, A5, 10893–10907, 1996.
- Lu, G., B.A. Emery, A.S. Rodger, M. Lester, J.R. Taylor, D.S. Evans, J.M. Ruohoniemi, W.F. Denig, O. de la Beaujardiere, R.A. Frahm, J.D. Winningham, and D.L. Chenette, "High-latitude ionospheric electrodynamics as determined by the assimilative mapping of ionospheric electrodynamics procedure for the conjunctive SUNDIAL/ATLAS 1/GEM period of March 28–29, 1992," *J. Geophys. Res.*, 101, 26697–26718, 1996.
- Matthews, D.L., J.M. Ruohoniemi, J.R. Dudeney, C.F. Farrugia, L.J. Lanzerotti, and E. Friis-Christensen, "Conjugate cusp-region ULF pulsation responses to the solar wind event of May 23, 1989," *J. Geophys. Res.*, 101(A4), 7829–7841, doi:10.1029/95JA03470, 1996.

- Nilsson, H., M. Yamauchi, L. Eliasson, O. Norberg, J. Clemmons, "The Ionospheric Signature of the Cusp as Seen by Incoherent Scatter Radar," *J. Geophys. Res.*, Vol. 101, 10947–10963, 1996.
- Ridley, A.J., and C.R. Clauer, "Characterization of the dynamic variations of the dayside high-latitude ionospheric convection reversal boundary and relationship to interplanetary magnetic field orientation," *J. Geophys. Res.*, 101(A5), 10919–10938, doi:10.1029/JA101iA05p10919, 1996.
- Sanchez, E.R., J.M. Ruohoniemi, C.-I. Meng, E. Friis-Christensen, "Toward an Observational Synthesis of Substorm Models: Precipitation Regions and High-Latitude Convection Reversals Observed in the Nightside Auroral Oval by HF Radars and DMSP Satellites," *J. Geophys. Res.*, Vol. 101, A9, 19801, 1996.
- Schunk, R.W. and J.J. Sojka, "Ionosphere-thermosphere space weather issues," *J. Atmos. Solar-Terr. Phys.*, [Vol. 58, No. 14](#), 1527-1574, 1996.
- Sitar, R.J., C.R. Clauer, and E. Friis-Christensen, "High-latitude ground-based response to sudden changes in solar wind dynamic pressure," *J. Geophys. Res.*, Vol. 101(A12), 27001-27013, doi: 10.1029/96JA02799, 1996.
- Taylor, J.R., T.K. Yeoman, M. Lester, B.A. Emery, and D.J. Knipp, "Variations in the polar cap area during intervals of substorm activity on 20-21 March 1990 deduced from AMIE convection patterns," *Ann. Geophys.*, 14, 879–887, 1996.
- Thayer, J.P., N.B. Nielsen, R.B. Kerr, J. Noto, "Rayleigh Lidar Observations During Arctic Summer Conditions," IGARRS Symposium, Lincoln, Nebraska, Vol. 1, 686–690, May 1996.
- Valladares, C.E., D.T. Decker, R. Sheehan, and D.N. Anderson, "Modeling the formation of polar cap patches using large plasma flows," *Radio Sci.*, 31(3), 573–594, 1996.

1995

- Anderson, H. M., M. J. Engebretson, R. L. Arnoldy, L. J. Cahill, Jr., and P. T. Newell, "A statistical study of hydromagnetic chorus events at very high latitudes," *J. Geophys. Res.*, 100, 3681, 1995.
- Arnoldy, R. L., and M. J. Engebretson, "Magnetic impulse events (MIE) measured at Pc 1 frequencies and at multiple sites," *Antarctic Journal of the United States*, 1994 Review Issue, 317, 1995.
- Clauer, C.R., and A.J. Ridley, "Ionospheric observations of magnetospheric low-latitude boundary layer waves on August 4, 1991," *J. Geophys. Res.*, 100(A11), 21873–21884, doi:10.1029/95JA00678, 1995.
- Clauer, C.R., P. Stauning, T.J. Rosenberg, E. Friis-Christensen, P.M. Miller, and R.J. Sitar, "Observations of a solar-wind-driven modulation of the dayside ionospheric DPY current system," *J. Geophys. Res.*, 100, 7697–7713, doi:10.1029/94JA01193, 1995.
- Cooper, M.L., C.R. Clauer, B.A. Emery, A.D. Richmond, and J.D. Winningham, "A storm time assimilative mapping of ionospheric electrodynamic analysis for the severe geomagnetic storm of November 8–9, 1991," *J. Geophys. Res.*, 100(A10), 19329–19342, doi:10.1029/95JA01402, 1995.
- Deng, W., T.L. Killeen, A.G. Burns, R.M. Johnson, B.A. Emery, R.G. Roble, J.D. Winningham, and J.B. Gary, "One-dimensional hybrid satellite track model for the Dynamics Explorer 2 (DE 2) satellite," *J. Geophys. Res.*, 100, 1611–1624, 1995.

- Doe, R.A., J.F. Vickrey, and M. Mendillo, "Electrodynamic Model for the Formation of Auroral Ionospheric Cavities," *J. Geophys. Res.*, Vol. 100, 9683, 1995.
- Engebretson, M. J., W. J. Hughes, J. L. Alford, E. Zesta, L. J. Cahill, Jr., R. L. Arnoldy, and G. D. Reeves, "Magnetometer array for cusp and cleft studies observations of the spatial extent of broadband ULF magnetic pulsations at cusp/cleft latitudes," *J. Geophys. Res.*, 100, 19371, 1995.
- Gary, J.B., R.A. Heelis, and J.P. Thayer, "Summary of Field-Aligned Poynting Flux Observations from DE 2," *Geophys. Res. Lett.*, Vol. 22, No. 14, 1861–1864, 1995.
- Kelly, J.D., C.J. Heinselman, J.F. Vickrey, and R.R. Vondrak, "The Sondrestrom radar and accompanying ground-based instrumentation," *Space Sci. Rev.*, Vol. 71, Nos. 1–4, 797–813, 1995.
- Killeen, T.L., Y.-I. Won, R.J. Niciejewski, and A.G. Burns, "Upper thermosphere winds and temperatures in the geomagnetic polar cap: Solar cycle, geomagnetic activity, and interplanetary magnetic field dependencies," *J. Geophys. Res.*, 100(A11), 21,327–21,342, 1995.
- Lu, G., A.D. Richmond, B.A. Emery, and R.G. Roble, "Magnetosphere-ionosphere-thermosphere coupling: Effect of neutral winds on energy transfer and field-aligned current," *J. Geophys. Res.*, 100, 19643–19659, 1995.
- Min, Q.-L., B.J. Watkins, "Determination of auroral heat fluxes and thermal ion outflows using a numerical ionospheric model and incoherent-scatter radar data," *J. Geophys. Res.*, Vol. 100, No. A1, 251–256, 1995.
- Papitashvili, V.O., C.R. Clauer, A.E. Levitin, and B.A. Belov, "Relationship between the observed and modeled modulation of the dayside ionospheric convection by the IMF By component," *J. Geophys. Res.*, 100(A5), 7715–7722, doi:10.1029/94JA01344, 1995.
- Reinisch, B.W., T.W. Bulett, J.L. Scali and D.M. Haines, "High latitude digisonde measurements and their relevance to IRI," *Adv. Space Res.*, 16(1), 17-26, 1995.
- Scali, J.L., B.W. Reinisch, C.J. Heinselman, and T.W. Bulett, "Coordinated Digisonde and Incoherent Scatter Radar F-Region Drift Measurements at Sondre Stromfjord," *Radio Sci.*, Vol. 30, No. 5, 1481–1498, Sept–Oct 1995.
- Showen, R.L., "Spectral plasma lines at Sondrestrom," *Radio Sci.*, 30(6), 1841–1854, 1995.
- Stauning, P., C.R. Clauer, T.J. Rosenberg, E. Friis-Christensen, and R. Sitar, "Observations of solar-wind-driven progression of interplanetary magnetic field By-related dayside ionospheric disturbances," *J. Geophys. Res.*, 100, 7567–7585, 1995.
- Stauning, P., H. Yamagishi, M. Nishino, and T.J. Rosenberg, "Dynamics of cusp-latitude absorption events observed by imaging riometers," *J. Geomag. Geoelectr.*, 47, 823–845, 1995.
- Thayer, J.P., J.F. Vickrey, R.A. Heelis, and J.B. Gary, "Interpretation and Modeling of the High-Latitude Electromagnetic Energy Flux," *J. Geophys. Res.*, Vol. 100, No. A10, 19715–19728, 1995.
- Thayer, J.P., N. Nielsen, and J. Jacobsen, "Noctilucent Cloud Observations Over Greenland by a Rayleigh Lidar," *Geophys. Res. Lett.*, Vol. 22, No. 21, 2961–2964, 1995.

1994

- Arnoldy, R. L., M. A. Popecki, and M. J. Engebretson, "Identifying the source of magnetic pulsations of frequency between 0.1 and 0.4 Hz (Pc 1/2) measured at high geomagnetic latitudes," *Antarctic Journal of the United States*, 1993 Review Issue, 323, 1994.
- Basu, S., S. Basu, P.K. Chaturvedi, and C.M. Bryant, Jr., "Irregularity Structures in the Cusp/Cleft and Polar Cap Regions," *Radio Sci.*, Vol. 29, No. 1, 195–207, Jan–Feb 1994.
- Berg, G.A., M.C. Kelley, M. Mendillo, R.A. Doe, F. Primdahl, C. Kletzing, J.F. Vickrey, and K.D. Baker, "Formation and eruption of sun-aligned polar cap arcs," *J. Geophys. Res.*, Vol. 99, No. A9, 17577–17589, September 1994.
- Clauer, C. R., C.E. Rasmussen, R.J. Niciejewski, T.L. Killeen, J.D. Kelly, Y. Zambre, T.J. Rosenberg, P. Stauning, E. Friis-Christensen, S.B. Mende, T.E. Weymouth, A. Prakash, S.E. McDaniel, G.M. Olson, T.A. Finholt, D.E. Atkins, "New project to support scientific collaboration electronically," *Eos Trans. AGU*, 75(26), 289–298, doi:10.1029/94EO00954, 1994.
- de la Beaujardiere, O., L.R. Lyons, M. Ruohoniemi, E. Friis-Christensen, C. Danielsen, F. Rich, and P. Newell, "Quiet-time intensifications along the poleward auroral boundary near midnight," *J. Geophys. Res.*, Vol. 99, No. A1, 287–298, 1994.
- Decker, D.T., C.E. Valladares, R. Sheehan, Su. Basu, D.N. Anderson, and R.A. Heelis, "Modeling daytime F layer patches over Sondrestrom," *Radio Science*, 29(1), 249–268, 1994.
- Doe, R.A., M. Mendillo, J.F. Vickrey, J.M. Ruohoniemi, R.A. Greenwald, "Coordinated Convection Measurements in the Vicinity of Auroral Cavities," *Radio Sci.*, Vol. 29, No. 1, 293–309, Jan-Feb 1994.
- Engebretson, M.J., J.R. Beck, D.L. Detrick, T.J. Rosenberg, R.L. Rairden, S.B. Mende, R.L. Arnoldy, and L.J. Cahill, Jr., "Optical evidence that modulated electron precipitation near the magnetopause boundary drives high latitude Pc 3/4 magnetic pulsations," Physical Signatures of Magnetospheric Boundary Layer Processes, Kluwer Academic Publ., 361, 1994.
- Erlanson, R. E., L. J. Zanetti, M. J. Engebretson, R. L. Arnoldy, T. Bosinger, and K. Mursula, "Pc 1 waves generated by a magnetospheric compression during the recovery phase of a geomagnetic storm, in Solar Wind Sources of Magnetospheric Ultra-Low-Frequency Waves," *Geophysical Monograph* 81, edited by M. J. Engebretson, K. Takahashi, and M. Scholer, American Geophysical Union, 399, 1994.
- Fullekrug, M., and A.C. Fraser-Smith, "Further evidence for a global correlation of the Earth-ionosphere cavity resonances," *Geophys. Res. Letters*, Vol. 23, No. 20, 2773, October 1994.
- Kamide, Y., A.D. Richmond, B.A. Emery, C.F. Hutchins, B.-H. Ahn, O. de la Beaujardiere, J.C. Foster, R.A. Heelis, H.W. Kroehl, F.J. Rich, and J.A. Slavin, "Ground-based studies of ionospheric convection associated with substorm expansion," *J. Geophys. Res.*, Vol. 99, A10, 19451, 1994.
- Knipp, D.J., B.A. Emery, and G. Lu, "Application of the Assimilative Mapping of Ionospheric Electrodynamics (AMIE) Procedure to Cusp Identification," in *Physical Signatures of Magnetospheric Boundary Layer Processes*, Jan A. Holtet and Alv Egeland, Eds., NATO Advanced Studies Institute Series C, Kluwer Academic Publishers, 401–419, 1994.
- Knipp, D.J., B.A. Emery, A.D. Richmond, and M.R. Hairston, "Mapping ionospheric convection response to IMF By negative and Bz positive conditions," *J. Atmos. Terr. Phys.*, 56, 223–235, 1994.

- Lu, G., A.D. Richmond, B.A. Emery, P.H. Reiff, O. de la Beaujardière, F.J. Rich, W.F. Denig, H.W. Kroehl, L.R. Lyons, J.M. Ruohoniemi, E. Friis-Christensen, H. Opgenoorth, M.A.L. Persson, R.P. Lepping, A.S. Rodger, T. Hughes, A. McEwin, S. Dennis, R. Morris, G. Burns, and L. Tomlinson, "Interhemispheric Asymmetry of the High-Latitude Ionospheric Convection Pattern," *J. Geophys. Res.*, Vol. 99, No. A4, 6491–6510, 1994.
- Niciejewski, R.J., T. Killeen and Y. Won, "Observations of neutral winds in the polar cap during northward IMF," *J. Atmos. Solar-Terr. Phys.*, 56(2), 285–295, 1994.
- Nilsson, H., S. Kirkwood, L. Eliasson, O. Norberg, J. Clemmons and M. Boehm, "The ionospheric signature of the cusp: A case study using Freja and the Sondrestrom radar," *Geophys. Res. Lett.*, 21, 1923–1926, 1994.
- Papitashvili, V.O. and C.R. Clauer, "Comment on the paper "Sondrestrom overview" by Wickwar et al.," *Geophys. Res. Lett.*, Vol. 21, No. 22, 2449–2450, 1994.
- Rodger, A.S., M. Pinnock, J.R. Dudeney, J. Watermann, O. de la Beaujardiere, K.B. Baker, "Simultaneous two hemisphere observations of the presence of polar patches in the night-side ionosphere," *Ann. Geophys.*, Vol. 12, Issue 7, 642–648, 1994.
- Strickland, D.J., J.H. Hecht, A.B. Christensen, and J.D. Kelly, "Relationship between energy flux Q and mean energy $\langle E \rangle$ of auroral electron spectra based on radar data from the 1987 CEDAR campaign at Sondre Stromfjord, Greenland," *J. Geophys. Res.*, Vol. 99, No. A10, 19467–19473, October 1994.
- Taylor, J.R., T.K. Yeoman, M. Lester, M.J. Buonsanto, J.L. Scali, J.M. Ruohoniemi, and J.D. Kelly, "Ionospheric Convection During the Magnetic Storm of 20/21 March 1990," *Ann. Geophys.*, Vol. 12, 1174–1191, December 1994.
- Valladares, C.E., S. Basu, J. Buchau, and E. Friis-Christensen, "Experimental Evidence for the Formation and Entry of Patches into the Polar Cap," *Radio Sci.*, Vol. 29, No. 1, 167–194, Jan-Feb 1994.
- Wang, Z., T. J. Rosenberg, P. Stauning, S. Basu, and G. Crowley, "Calculations of Riometer Absorption Associated with F Region Plasma Structures Based on Sondre Stromfjord Incoherent Scatter Radar Observations," *Radio Sci.*, Vol. 29, No. 1, 209–215, Jan-Feb 1994.
- Watermann, J., O. de la Beaujardière, D. Lummerzheim, J. Woch, P.T. Newell, T. A. Potemra, F.J. Rich, and M. Shapshak, "The Dynamic Cusp at Low Altitudes: A Case Study Utilizing Viking, DMSP-F7, and Sondrestrom Incoherent Scatter Radar Observations," *Ann. Geophys.*, Vol. 12, 1144–1157, 1994.
- Watermann, J., D. Lummerzheim, O. de la Beaujardière, P. Newell, and F.J. Rich, "Ionospheric Footprint of Magnetosheathlike Particle Precipitation Observed by an Incoherent Scatter Radar," *J. Geophys. Res.*, Vol. 9, No. A3, 3855–3867, March 1994.

1993

- Basu, S., S. Basu, R. Eastes, R.E. Huffman, R.E. Daniell, P.K. Chaturvedi, C.E. Valladares, and R.C. Livingston, "Remote Sensing of Auroral E Region Plasma Structures by Radio, Radar, and UV Techniques at Solar Minimum," *J. Geophys. Res.*, Vol. 98, No. A2, 1589–1602, February 1, 1993.
- Bristow, W.A., and B.J. Watkins, "Incoherent Scatter Observations of Thin Ionization Layers at Sondrestrom," *J. Atmos. Terr. Phys.*, Vol. 55, No. 6, 873–894, May 1993.

- Carr, S.S., R.J. Niciejewski and T.L. Killeen, "Remote-sensing of F-Region Ion Drifts and Ion Temperatures at Sondre Stromfjord, Greenland Using Doppler Measurements of the $O^+(^2P)$ State," *Geophys. Res. Lett.*, Vol. 20, No. 19, 2035–2038, October 1993.
- Cho, J.Y.N., and M.C. Kelley, "Polar mesosphere summer radar echoes: Observations and current theories," *Revs. Geophys.*, 31(3):243-265, doi:10.1029/93RG01535, 1993.
- de la Beaujardière, O., J. Watermann, P. Newell, and F. Rich, "Relationship Between Birkeland Current Regions, Particle Precipitation, and Electric Fields," *J. Geophys. Res.*, Vol. 98, No. A5, 7711–7720, May 1993.
- Doe, R.A., M. Mendillo, J.F. Vickrey, L.J. Zanetti, and R.W. Eastes, "Observations of Nightside Auroral Cavities," *J. Geophys. Res.*, Vol. 98, No. A1, 293–310, January 1, 1993.
- Gallagher, H.A., R.L. Carovillano, E.J. Weber, and J.F. Vickrey, "Plasma Flows Associated with an Auroral Arc at the Polar Cap Boundary," in *Auroral Plasma Dynamics, Geophys. Monogr. Ser.*, edited by R.L. Lysak, Vol. 80, 81–88, AGU, Washington, D.C., 1993.
- Knipp, D.J., B.A. Emery, A.D. Richmond, N.U. Crooker, M.R. Hairston, J.A. Cumnock, W.F. Denig, F.J. Rich, O. de la Beaujardière, J.M. Ruohoniemi, A.S. Rodger, G. Crowley, B.H. Ahn, D.S. Evans, T.J. Fuller-Rowell, E. Friis-Christensen, M. Lockwood, H.W. Kroehl, C.G. MacLennan, A. McEwin, R.J. Pellinen, R.J. Morris, G.B. Burns, V. Papotashvili, A. Zaitzev, O. Troshichev, N. Sato, P. Sutcliffe, and L. Tomlinson, "Ionospheric Convection Response to Slow, Strong Variations in Northward Interplanetary Magnetic Field: A Case Study for January 14, 1988," *J. Geophys. Res.*, Vol. 98, No. A7, 19273–19292, November 1993.
- Lester, M., O. de la Beaujardière, J.C. Foster, M.P. Freeman, H. Luhr, J.M. Rouhoniemi, and W. Swider, "The Response of the Large Scale Ionospheric Convection Pattern to Changes in the IMF and Substorms: Results from the SUNDIAL 1987 Campaign," *Ann. Geophys.*, Vol. 11, 556–571, March 1993.
- Palmer, R.D., M.F. Larsen, C.J. Heinselman, and I.S. Mikkelsen, "Frequency Domain Interferometry Using the 1290-MHz Sondre Stromfjord Radar: First Results," *J. Atmos. and Oceanic Technology*, Vol. 10, No. 4, August 1993.
- Popecki, M. A., R. L. Arnoldy, M. J. Engebretson, and L. J. Cahill, Jr., "High-latitude ground observations of Pc $\frac{1}{2}$ micropulsations," *J. Geophys. Res.*, 98, 21481, 1993.
- Ruohoniemi, J.M., R.A. Greenwald, O. de la Beaujardière, and M. Lester, "The Response of the High-Latitude Dayside Ionosphere to an Abrupt Northward Transition in the IMF," *Ann. Geophys.*, Vol. 11, 544–555, 1993.
- Sica, R.J., P. St. Maurice, G. Hernandez, G.J. Romick, and R.T. Tsunoda, "Computations of Local Ion Energy Balance in the Auroral Zone," *J. Geophys. Res.*, Vol. 98, No. A9, 15667–15676, September 1993.
- Watermann, J., O. de la Beaujardière, F.J. Rich, "Comparison of Ionospheric Electrical Conductances Inferred from Coincident Radar and Spacecraft Measurements and Photoionization Models," *J. Atmos. Terr. Phys.*, Vol. 55, No. 11/12, 1513–1520, 1993.
- Watermann, J., O. de la Beaujardière, and H.E. Spence, "Space-Time Structure of the Morning Aurora Inferred from Coincident DMSP-F6, -F8, and Sondrestrom Incoherent Scatter Radar Observations," *J. Atmos. Terr. Phys.*, Vol. 55, No. 14, 1729–1739, 1993.

Weiss, L.A., Weber, E.J., Reiff, P.H., Sharber, J.R., Winningham, J.D., Primdahl, F., Mikkelsen, I.S., Seifring, C., and Wescott, E.M., "Convection and Electrodynamical Signatures in the Vicinity of a Sun-Aligned Arc: Results from the Polar Acceleration Regions and Convection Study (Polar Arcs)," in *Auroral Plasma Dynamics* (ed R. L. Lysak), American Geophysical Union, Washington, D.C., doi: 10.1029/GM080p0069, 1993.

1992

Cho, J.Y.N., M.C. Kelley, and C.J. Heinselman, "Enhancement of Thomson Scatter by Charged Aerosols in the Polar Mesosphere: Measurements with a 1.29 GHz Radar," *Geophys. Res. Lett.*, Vol. 19, No. 11, 1097–1100, June 1992.

Fraser-Smith, A., "The Natural Background Levels of 50/60 Hz Radio Noise," *IEEE Trans. on Electromagnetic Compatibility*, Vol. 34, No. 3, 330–337, August 1992.

Heinselman, C.J., and J.F. Vickrey, "On the Frequency of Langmuir Waves in the Ionosphere," *J. Geophys. Res.*, Vol. 97, No. A10, 14905–14910, October 1992.

Heinselman, C.J., and J.F. Vickrey, "On the Spectral Analysis and Interpretation of Incoherent Scatter Plasma Line Echoes," *Radio Sci.*, Vol. 27, No. 2, 221–230, March-April 1992.

Kelly, J.D., "Greenland Research Projects," *Science*, Vol. 255, 1626–1627, March 1992.

Knudsen, D.J., M.C. Kelley and J.F. Vickrey, "Alfvén Waves in the Auroral Ionosphere: A Numerical Model Compared With Measurements," *J. Geophys. Res.*, Vol. 97, No. A1, 77–90, January 1992.

Niciejewski, R.J., T.L. Killeen, R.M. Johnson, and J.P. Thayer, "The Behavior of the High-Latitude F-Region Neutral Thermosphere in Relation to IMF Parameters," *Adv. Space Res.*, Vol. 12, No. 6, 215–218, 1992.

Potemra, T.A., R.E. Erlandson, L.J. Zanetti, R.L. Arnoldy, J. Woch, and E. Friis-Christensen, "The dynamic cusp," *J. Geophys. Res.*, 97(A3), 2835–2844, doi:10.1029/91JA02654, 1992.

Rich, F.J., and W.F. Denig, "The Major Magnetic Storm of March 13–14, 1989 and Associated Ionosphere Effects," *Can. J. Phys.*, Vol. 70, 510–525, 1992.

Rishbeth, H., and B.S. Lanchester, "Incoherent Scatter Observations of the E and F Regions," *Planet. Space Sci.*, Vol. 40, No. 2/3, 355–372, 1992.

Robinson, R., T. Dabbs, J. Vickrey, R. Eastes, F. Del Greco, R. Huffman, C. Meng, R. Daniell, D. Strickland, and R. Vondrak, "Coordinated Measurements Made by the Sondrestrom Radar and the Polar Bear Ultraviolet Imager," *J. Geophys. Res.*, Vol. 97, No. A3, 2863–2871, March 1992.

Thayer, J.P., and J.F. Vickrey, "On the Contribution of the Thermospheric Neutral Wind to High-Latitude Energetics," *Geophys. Res. Lett.*, Vol. 19, No. 3, 265–268, February 7, 1992.

Watermann, J.O., O. de la Beaujardiere, and P.T. Newell, "Incoherent scatter Radar Observations of Ionospheric Signatures of Cusp-like Electron Precipitation," *J. Geomag. Geoelectr.*, Vol. 44, No. 12, 1195–1206, 1992

Watermann, J., O. de la Beaujardière, and P.T. Newell, "Incoherent Scatter Radar Observations of Ionospheric Signatures of Cusp-like Electron Precipitation," *J. Geomag. Geoelectr.*, Vol. 44, No. 12, 1195–1206, 1992.

1991

- Basu, Su., S. Basu, E. Costa, C. Bryant, C.E. Valladares, and R.C. Livingston, "Interplanetary magnetic field control of drifts and anisotropy of high-latitude irregularities," *Radio Sci.*, 26(4), 1079–1103, 1991.
- Bilitza, D., "Electron and ion temperature data for ionospheric modelling," *Adv. Space Res.*, 11(10):139-148, doi:10.1016/0273-1177(91)90336-I, 1991.
- Bristow, W.A., and B.J. Watkins, "Numerical Simulation of the Formation of Thin Ionization Layers at High Latitudes," *J. Geophys. Res.*, Vol. 18, No. 3, 404–407, March 1991.
- de la Beaujardière, O., L.R. Lyons, and E. Friis-Christensen, "Sondrestrom Radar Measurements of the Reconnection Electric Field," *J. Geophys. Res.*, Vol. 96, No. A8, 13907–13912, August 1, 1991.
- de la Beaujardière, O., D. Alcaydé, J. Fontanari, and C. Leger, "Seasonal Dependence of High-Latitude Electric Fields," *J. Geophys. Res.*, Vol. 96, No. A4, 5723–5735, April 1, 1991.
- de la Beaujardière, O., R. Johnson, and V.B. Wickwar, "Ground-Based Measurements of Joule Heating Rates," in *Auroral Physics*, C.-I. Meng, M.J. Rycroft and L.A. Frank, Eds., Cambridge UP, 1991.
- Fesen, C.G., and R.G. Roble, "Simulations of the September 1987 Lower Thermospheric Tides With the National Center for Atmospheric Research Thermosphere-Ionosphere General Circulation Model," *J. Geophys. Res.*, Vol. 96, No. A2, 1173–1180, February 1, 1991.
- Forbes, J.M., and F. Vial, "Semidiurnal Climatology of the *E* Region," *J. Geophys. Res.*, Vol. 96, No. A2, 1147–1157, February 1, 1991.
- Forbes, J.M., and J.E. Salah, "Mesosphere-Thermosphere Tidal Coupling During the September 21–25, 1987, LTCS 1 Campaign," *J. Geophys. Res.*, Vol. 96, No. A2, 1135–1145, February 1, 1991.
- Fraser-Smith, A.C., P.R. McGill, A. Bernardi, R.A. Helliwell, and M.E. Ladd, "Global Measurements of Low-Frequency Radio Noise," in *Environmental and Space Electromagnetics*, 191–200, H. Kikuchi, Ed., Springer-Verlag, Tokyo, 1991.
- Fuller-Rowell, T.J., D. Rees, H.F. Parish, T.S. Virdi, P.J.S. Williams, and R.M. Johnson, "Lower Thermosphere Coupling Study: Comparison of Observations with Predictions of the University College London-Sheffield Thermosphere-Ionosphere Model," *J. Geophys. Res.*, Vol. 96, No. A2, 1181–1202, February 1, 1991.
- Gattinger, R.L., A. Vallance Jones, J.H. Hecht, D.J. Strickland, and J. Kelly, "Comparison of Ground-Based Optical Observations of N_2 Second Positive to N_2^+ First Negative Emission Ratios with Electron Precipitation Energies Inferred from the Sondre Stromfjord Radar," *J. Geophys. Res.*, Vol. 96, No. A7, 11341–11351, July 1, 1991.
- Hecht, J., D.J. Strickland, A.B. Christensen, D.C. Kayser, and R.L. Walterscheid, "Lower Thermospheric Composition Changes Derived from Optical and Radar Data Taken at Sondre Stromfjord During the Great Magnetic Storm of February 1986," *J. Geophys. Res.*, Vol. 96, No. A4, 5757–5776, April 1, 1991.
- Hedin, A.E., M.A. Biondi, R.G. Burnside, G. Hernandez, R.M. Johnson, T.L. Killeen, C. Mazaudier, J.W. Meriwether, J.E. Salah, R.J. Sica, R.W. Smith, N.W. Spencer, V.B. Wickwar, and T.S. Virdi, "Revised Global Model of Thermosphere Winds Using Satellite and Ground-Based Observations," *J. Geophys. Res.*, Vol. 96, No. A5, 7657–7688, May 1, 1991.

- Heelis, R.A., and J.F. Vickrey, "Energy Dissipation in Structured Electrodynamical Environments," *J. Geophys. Res.*, Vol. 96, No. A8, 14189–14194, August 1, 1991.
- Hunsucker, R.D., "Radio Techniques for Probing the Terrestrial Ionosphere," in *Physics and Chemistry in Space*, Vol. 22, M.C.E. Huber, L.J. Lanzerotti, and D. Stoffler, Eds., Springer-Verlag, Berlin Heidelberg, 1991.
- Johnson, R.M., and T.S. Virdi, "High-Latitude Lower Thermospheric Neutral Winds at EISCAT and Sondrestrom During LTCS 1," *J. Geophys. Res.*, Vol. 96, No. A2, 1099–1116, February 1, 1991.
- Johnson, R.M., "Sondrestrom Incoherent Scatter Radar Observations During the Lower Thermosphere Coupling Study: September 21–26, 1987," *J. Geophys. Res.*, Vol. 96, No. A2, 1081–1090, February 1, 1991.
- Kelley, M.C., D.J. Knudsen, and J.F. Vickrey, "Poynting Flux Measurements on a Satellite: A Diagnostic Tool for Space Research," *J. Geophys. Res.*, Vol. 96, No. A1, 201–207, January 1, 1991.
- Killeen, T.L., F.G. McCormac, A.G. Burns, J.P. Thayer, R.M. Johnson and R.J. Niciejewski, "On the dynamics and composition of the high-latitude thermosphere," *J. Atmos. Terr. Phys.*, 53(9), 797–814, 1991.
- Knipp, D.J., A.D. Richmond, B. Emery, N.U. Crooker, O. de la Beaujardière, D. Evans, and H. Kroehl, "Ionospheric Convection Response to Changing IMF Direction," *Geophys. Res. Lett.*, Vol. 18, No. 4, 721–724, April 1991. Marklund, G.T., L.G. Blomberg, J.S. Murphree, R.D. Elphinstone, L.J. Zanetti, R.E. Erlandson, I. Sandahl, O. de la Beaujardière, H. Opgenoorth, and F.J. Rich, "On the Electrodynamical State of the Auroral Ionosphere During Northward Interplanetary Magnetic Field: A Transpolar Arc Case Study," *Geophys. Res. Lett.*, Vol. 96, No. A6, 9567–9578, June 1991.
- Newell, P.T., W.J. Burke, E.R. Sánchez, C.-I. Meng, M.E. Greenspan, and C.R. Clauer, "The low-latitude boundary layer and the boundary plasma sheet at low altitude: Prenoon precipitation regions and convection reversal boundaries," *J. Geophys. Res.*, 96(A12), 21013–21023, doi:10.1029/91JA01818, 1991.
- Reese, K.W., R.M. Johnson, and T.L. Killeen, "Lower Thermospheric Neutral Densities Determined from Sondrestrom Incoherent Scatter Radar During LTCS 1," *J. Geophys. Res.*, Vol. 96, No. A2, 1091–1098, February 1, 1991.
- Robinson, R.M., "A Survey of Polar Cap *F* Region Electron Densities Measured by the Sondrestrom Radar," *Radio Sci.*, Vol. 26, No. 4, 1069–1078, July-August 1991.
- Salah, J.E., R.M. Johnson, and C.A. Tepley, "Coordinated Incoherent Scatter Radar Observations of the Semidiurnal Tide in the Lower Thermosphere," *J. Geophys. Res.*, Vol. 96, No. A2, 1071–1080, February 1, 1991.
- Valladares, C.E., and H.C. Carlson, Jr., "The Electrodynamical, Thermal, and Energetic Character of Intense Sun-Aligned Arcs in the Polar Cap," *J. Geophys. Res.*, Vol. 96, No. A2, 1379–1400, February 1, 1991.
- Vennerstrøm, S., E. Friis-Christensen, O.A. Troshichev, and V.G. Andrezen, "Comparison between the polar cap index PC and the auroral electrojet indices AE, AL, and AU," *J. Geophys. Res.*, 96, 101, 1991.

Weber, E.J., J.F. Vickrey, H. Gallagher, L. Weiss, C.J. Heinselman, R.A. Heelis, and M.C. Kelley, "Coordinated Radar and Optical Measurements of Stable Auroral Arcs at the Polar Cap Boundary," *J. Geophys. Res.*, Vol. 96, No. A10, 17847–17863, October 1, 1991.

1990

Boehm, M.H., C.W. Carlson, J.P. McFadden, J.H. Clemmons, and F.S. Mozer, "High-Resolution Sounding Rocket Observations of Large-Amplitude Alfvén Waves," *J. Geophys. Res.*, Vol. 95, No. A8, 12157–12171, August 1, 1990.

Detrick, D.L., and T.J. Rosenberg, "A Phased-Array Radiowave Imager for Studies of Cosmic Noise Absorption," *Radio Sci.*, Vol. 25, No. 4, 325–338, July-August 1990.

Doolittle, J.H., S.B. Mende, R.M. Robinson, G.R. Swenson, and C.E. Valladares, "An Observation of Ionospheric Convection and Auroral Arc Motion," *J. Geophys. Res.*, Vol. 95, No. A11, 19123–19129, November 1, 1990.

Emery, B.A., A.D. Richmond, H.W. Kroehl, C.D. Wells, J.M. Ruohoniemi, M. Lester, D.J. Knipp, F.J. Rich, J.C. Foster, O. de la Beaujardière, C. Senior, L.M. Shier, J.F. McKee, and S. Maedo, "Electric Potential Patterns Deduced for the SUNDIAL Period of September 23–26, 1986," *Ann. Geophys.*, Vol. 8, No. 6, 399–408, 1990.

Fejer, B.G., M.C. Kelley, C. Senior, O. de la Beaujardière, J.A. Holt, C.A. Tepley, R. Burnside, M.A. Abdu, J.H.A. Sobral, R.F. Woodman, Y. Kamide, and P. Lepping, "Low- and Mid-Latitude Ionospheric Electric Fields During the January 1984 GISMOS Campaign," *J. Geophys. Res.*, Vol. 95, No. A3, 2367–2377, 1990.

Heelis, R.A., and J.F. Vickrey, "Magnetic Field-Aligned Coupling Effects on Ionospheric Plasma Structure," *J. Geophys. Res.*, Vol. 95, No. A6, 7995–8008, June 1, 1990.

Johnson, R.M., "Lower-Thermospheric Neutral Winds at High Latitude Determined from Incoherent Scatter Measurements: A Review of Techniques and Observations," *Adv. Space Res.*, Vol. 10, No. 6, (6)261–(6)275, 1990.

Knudsen, D.J., M.C. Kelley, G.D. Earle, J.F. Vickrey, and M. Boehm, "Distinguishing Alfvén Waves from Quasi-Static Field Structures Associated with the Discrete Aurora: Sounding Rocket and HILAT Satellite Measurements," *Geophys. Res. Lett.*, Vol. 17, No. 7, 921–924, June 1990.

Lyons, L.R., O. de la Beaujardière, G. Rostoker, J.S. Murphree, and E. Friis-Christensen, "Analysis of Substorm Expansion and Surge Development," *J. Geophys. Res.*, Vol. 95, No. A7, 10575–10589, July 1, 1990.

MacDougall, J.W., "Distribution of Irregularities in the Northern Polar Region Determined from HILAT Observations," *Radio Sci.*, No. 2, 115–124, March-April 1990.

McHenry, M.A., C.R. Clauer, and E. Friis-Christensen, "Relationship of Solar Wind Parameters to Continuous, Dayside, High Latitude Traveling Ionospheric Convection Vortices," *J. Geophys. Res.*, Vol. 95, No. A9, 15007–15022, September 1, 1990.

McHenry, M.A., C.R. Clauer, E. Friis-Christensen, P.T. Newell, and J.D. Kelly, "Ground Observations of Magnetospheric Boundary Layer Phenomena," *J. Geophys. Res.*, Vol. 95, No. A9, 14995–15005, September 1, 1990.

- Mendillo, M., "Sounding Rockets Explore the Ionosphere," *Aerospace America*, Pub: American Institute of Aeronautics and Astronautics, 38–41, Aug 1990.
- Moen, J., and A. Brekke, "On the Importance of Ion Composition to Conductivities in the Auroral Ionosphere," *J. Geophys. Res.*, Vol. 95, No. A7, 10687–10693, July 1, 1990.
- Raymund, T.D., J.R. Austen, S.J. Franke, C.H. Liu, J.A. Klobuchar, and J. Stalker, "Application of Computerized Tomography to the Investigation of Ionospheric Structures," *Radio Sci.*, Vol. 25, No. 5, 771–789, September/October 1990.
- Richmond, A.D., Y. Kamide, S.-I. Akasofu, D. Alcaydé, M. Blanc, O. de la Beaujardière, D.S. Evans, J.C. Foster, E. Friis-Christensen, J.M. Holt, R.J. Pellinen, C. Senior, and A.N. Zaitzev, "Global Measures of Ionospheric Electrodynamical Activity Inferred from Combined Incoherent Scatter Radar and Ground Magnetometer Observations," *J. Geophys. Res.*, Vol. 95, No. A2, 1061–1071, February 1, 1990.
- Robinson, R.M., and R.R. Vondrak, "Electrodynamical Properties of Auroral Surges," *J. Geophys. Res.*, Vol. 95, No. A6, 7819–7832, June 1, 1990.
- Robinson, R.M., C.R. Clauer, O. de la Beaujardière, J.D. Kelly, E. Friis-Christensen, and M. Lockwood, "Sondrestrom and EISCAT Radar Observations of Poleward-moving Auroral Forms," *J. Atmos. Terr. Phys.*, Vol. 52, No. 6–8, 411–420, 1990.
- Robinson, R., and S. Mende, "Ionization and electric field properties of auroral arcs during magnetic quiescence," *J. Geophys. Res.*, 95(A12), 21111–21121, 1990.
- Senior, C., D. Fontaine, G. Caudal, D. Alcaydé, and J. Fontanari, "Convection Electric Fields and Electrostatic Potential over 61° – 72° Invariant Latitude Observed with the European Incoherent Scatter Facility, 2. Statistical Results," *Ann. Geophys.*, Vol. 8, No. 4, 257–272, 1990.

1989

- Crowley, G., B.A. Emery, R.G. Roble, H.C. Carlson, Jr., J.E. Salah, V.B. Wickwar, K.L. Miller, W.L. Oliver, R.G. Burnside, and F.A. Marcos, "Thermospheric Dynamics During September 18–19, 1984, 2. Validation of the NCAR Thermospheric General Circulation Model," *J. Geophys. Res.*, Vol. 94, No. A12, 16945–16959, 1989.
- Doolittle, J.H., S.B. Mende, G.R. Swenson, and R.M. Robinson, "Ionospheric Convection in the Polar Cap as Seen by Optical Imaging," in *Electromagnetic Coupling in the Polar Clefts and Caps*, P.E. Sandholt and A. Egeland, Eds., Kluwer Academic Publishers, 127–136, doi: 10.1007/978-94-009-0979-3_9, 1989.
- Earle, G.D., M.C. Kelley, and G. Ganguli, "Large Velocity Shears and Associated Electrostatic Waves and Turbulence in the Auroral F Region," *J. Geophys. Res.*, Vol. 94, No. A11, 15321–15333, 1989.
- Foster, J.C., "Plasma Transport Through the Dayside Cleft: A Source of Ionization Patches in the Polar Cap," in *Electromagnetic Coupling in the Polar Clefts and Caps*, P.E. Sandholt and A. Egeland, Eds., Kluwer Academic Publishers, 1989.
- Foster, J.C., T. Turunen, P. Pollari, H. Kohl, and V.B. Wickwar, "Multi-Radar Mapping of Auroral Convection," *Adv. Space Res.*, Vol. 9, No. 5, pp (5)19–(5)27, 1989.

- Hecht, J.H., A.B. Christensen, D.J. Strickland, and R.R. Meier, "Deducing Composition and Incident Electron Spectra From Ground-Based Auroral Optical Measurements: Variations in Oxygen Density," *J. Geophys. Res.*, Vol. 94, No. A10, 13553–13563, 1989.
- Heikkila, W.J, T. Stockflet Jørgensen, L.J. Lanzerotti, and C.G. Maclellan, "A Transient Auroral Event on the Dayside," *J. Geophys. Res.*, Vol. 94, No. A11, 15291–15305, 1989.
- Knipp, D.J., A.D. Richmond, G. Crowley, O. de la Beaujardière, E. Friis-Christensen, D.S. Evans, J.C. Foster, I.W. McCreath, F.J. Rich, and J.A. Waldock, "Electrodynamic Patterns for September 19, 1984," *J. Geophys. Res.*, Vol. 94, No. A12, 16913–16923, 1989.
- LaBelle, J., R.J. Sica, C. Kletzing, G.D. Earle, M.C. Kelley, D. Lummerzheim, R.B. Torbert, K.D. Baker, and G. Berg, "Ionization from Soft Electron Precipitation in the Auroral *F* Region," *J. Geophys. Res.*, Vol. 94, No. A4, 3791–3798, 1989.
- Larsen, M.F., I.S. Mikkelsen, J.W. Meriwether, R. Nielejewski, and K. Vickery, "Simultaneous Observations of Neutral Winds and Electric Fields at Spaced Locations in the Dawn Auroral Oval," *J. Geophys. Res.*, Vol. 94, No. A12, 17235–17243, December 1, 1989. Meier, R.R., D.J. Strickland, J.H. Hecht, and A.B. Christensen, "Deducing Composition and Incident Electron Spectra From Ground-Based Auroral Optical Measurements: A Study of Auroral Red Line Processes," *J. Geophys. Res.*, Vol. 94, No. A10, 13541–13552, 1989.
- Nielejewski, R.J., J.W. Meriwether, A. Vallance Jones, R.L. Gattinger, C.E. Valladares, V.B. Wickwar, and J. Kelly, "Ground-Based Observations of O_2^+ 1N Band Enhancements Relative to N_2^+ 1N Band Emission," *Planet. Space Sci.*, Vol. 37, No. 2, 131–143, 1989.
- Nielejewski, R.J., J.W. Meriwether, F.G. McCormac, J.H. Hecht, A.B. Christensen, G.G. Sivjee, D.J. Strickland, G. Swenson, S.B. Mende, A. Vallance Jones, R.L. Gattinger, H.C. Carlson, and C.E. Valladares, "Coordinated Satellite and Ground-Based Measurements of the Energy Characteristics of a Sun-Aligned Arc Over Sondre Stromfjord," *J. Geophys. Res.*, Vol. 94, No. A12, 17201–17213, December 1, 1989.
- Robinson, R.M., R.R. Vondrak, J.D. Craven, L.A. Frank, and K. Miller, "A Comparison of Ionospheric Conductances and Auroral Luminosities Observed Simultaneously with the Chatanika Radar and the DE-1 Auroral Imagers," *J. Geophys. Res.*, Vol. 94, No. A5, 5382–5296, 1989.
- Ruohoniemi, J.M., R.A. Greenwald, K.B. Baker, J.P. Villain, C. Hanuise, and J. Kelly, "Mapping High-Latitude Plasma Convection with Coherent HF Radars," *J. Geophys. Res.*, Vol. 94, No. A10, 13463–13477, 1989.
- Tsunoda, R.T., R.C. Livingston, J.F. Vickrey, R.A. Heelis, W.B. Hanson, F.J. Rich, and P.F. Bythrow, "Dayside Observations of Thermal-Ion Upwellings at 800-km Altitude: An Ionospheric Signature of the Cleft Ion Fountain," *J. Geophys. Res.*, Vol. 94, No. A11, 15277–15290, 1989.
- Weber, E.J., M.C. Kelley, J.O. Ballenthin, S. Basu, H.C. Carlson, J.R. Fleischman, D.A. Hardy, N.C. Maynard, R.F. Pfaff, P. Rodriguez, R.E. Sheehan, and M. Smiddy, "Rocket Measurements Within a Polar Cap Arc: Plasma, Particle, and Electric Circuit Parameters," *J. Geophys. Res.*, Vol. 94, No. A6, 6692–6712, 1989.

1988

- Arnoldy, R.L., M.J. Engebretson, and L.J. Cahill Jr., "Bursts of Pc 1-2 near the ionospheric footprint of the cusp and their relationship to flux transfer events," *J. Geophys. Res.*, 93(A2), 1007–1016, doi:10.1029/JA093iA02p01007, 1988.
- Clauer, C.L. and E. Friis-Christensen, "High-Latitude Dayside Electric Fields and Currents During Strong Northward Interplanetary Magnetic Field: Observations and Model Simulation," *J. Geophys. Res.*, Vol. 93, No. A4, 2749–2757, 1988.
- Friis-Christensen, E., M.A. McHenry, C.R. Clauer, and S. Vennerstrøm, "Ionospheric Traveling Convection Vortices Observed near the Polar Cleft: A Triggered Response to Sudden Changes in the Solar Wind," *Geophys. Res. Lett.*, Vol. 15, No. 3, 253–256, 1988.
- Hagan, M.E., and J.E. Salah, "Effects of Geomagnetic Activity in the Winter Thermosphere, 1. Magnetically Undisturbed Conditions," *J. Geophys. Res.*, Vol. 93, No. A9, 9927–9935, 1988.
- Hunsucker, R.D., and J.K. Hargreaves, "A Study of Gravity Waves in Ionospheric Electron Content at $L=4$," *J. Atmos. Terr. Phys.*, Vol. 50, No. 2, 167–172, 1988.
- Kelley, M.C., and G.D. Earle, "Upper Hybrid and Langmuir Turbulence in the Auroral E Region," *J. Geophys. Res.*, Vol. 93, No. A3, 1993–1996, 1988.
- McHenry, M.A., C.R. Clauer, E. Friis-Christensen, and J.D. Kelly, "Observations of Ionospheric Convection Vortices: Signatures of Momentum Transfer," *Adv. Space Res.*, Vol. 8, No. 9–10, (9)315–(9)320, 1988.
- Mende, S.B., J.H. Doolittle, R.M. Robinson, R.R. Vondrak, and F.J. Rich, "Plasma Drifts Associated with a System of Sun-Aligned Arcs in the Polar Cap," *J. Geophys. Res.*, Vol. 93, No. A1, 256–264, 1988.
- Meriwether, J.W., T.L. Killeen, F.G. McCormac, A.G. Burns, and R.G. Roble, "Thermospheric Winds in the Geomagnetic Polar Cap for Solar Minimum Conditions," *J. Geophys. Res.*, Vol. 93, No. A7, 7478–7492, 1988.
- Oliver, W.E., and J.E. Salah, "The Global Thermospheric Mapping Study," *J. Geophys. Res.*, Vol. 93, No. A5, 4039–4059, 1988.
- Pollock, C.J., R.L. Arnoldy, R.E. Erlandson, and L.J. Cahill, "Observations of the Plasma Environment During an Active Ionospheric Ion Beam," *J. Geophys. Res.*, Vol. 93, No. A10, 11473–11493, 1988.
- Rasmussen, C.E., R.W. Schunk, and V.B. Wickwar, "A Photochemical Equilibrium Model for Ionospheric Conductivity," *J. Geophys. Res.*, Vol. 93, No. A9, 9831–9840, 1988.
- Rasmussen, C.E., J.J. Sojka, R.W. Schunk, V.B. Wickwar, O. de la Beaujardière, J. Foster, and J. Holt, "Comparison of Simultaneous Chatanika and Millstone Hill Temperature Measurements with Ionospheric Model Predictions," *J. Geophys. Res.*, Vol. 93, No. A3, 1922–1932, 1988.
- Rice, D.D., R.D. Hunsucker, L.J. Lanzerotti, G. Crowley, P.J.S. Williams, J.D. Craven, and L. Frank, "An Observation of Atmospheric Gravity Wave Cause and Effect During the October 1985 WAGS Campaign," *Radio Sci.*, Vol. 23, No. 6, 919–930, 1988.

- Richmond, A.D., Y. Kamide, B.-H. Ahn, S.-I. Akasofu, D. Alcayd , M. Blanc, O. de la Beaujardi re, D.S. Evans, J.C. Foster, E. Friis-Christensen, R.J. Fuller-Rowell, J.M. Holt, D. Knipp, H.W. Kroehl, R.P. Lepping, R.J. Pellinen, C. Senior, and A.N. Zaitzev, "Mapping Electrodynamic Features of the High-Latitude Ionosphere from Localized Observations: Combined Incoherent-Scatter Radar and Magnetometer Measurements for January 18–19, 1984," *J. Geophys. Res.*, Vol. 93, No. A6, 5760–5776, 1988.
- Robinson, R.M., R.R. Vondrak, D. Hardy, M.S. Gussenhoven, T.A. Potemra, and P.F. Bythrow, "Electrodynamics of Very High Latitude Arcs in the Morning Sector Auroral Zone," *J. Geophys. Res.*, Vol. 93, No. A2, 913–922, 1988.
- Sheen, D.R., and C.H. Liu, "Modeling *F* Region Gravity Waves Observed During the WAGS Campaign, 2. Background Wave Spectra," *Radio Sci.*, Vol. 23, No. 6, 894–904, 1988.
- Sheen, D.R., and C.H. Liu, "Modeling *F* Region Gravity Waves Observed During the WAGS Campaign, 1. Special Event," *Radio Sci.*, Vol. 23, No. 6, 879–893, 1988.
- Sica, R.J., R.W. Schunk, and C.E. Rasmussen, "Can the High Latitude Ionosphere Support Large Field-Aligned Ion Drifts?" *J. Atmos. Terr. Phys.*, Vol. 50, No. 2, 141–152, 1988.
- Tsunoda, R.T., "High-Latitude *F* Region Irregularities: A Review and Synthesis," *Revs. Geophys.*, Vol. 26, No. 4, 719–760, 1988.
- Valladares, C.E., M.C. Kelley, and J.F. Vickrey, "Plasma Line Observations in the Auroral Oval," *J. Geophys. Res.*, Vol. 93, No. A3, 1997–2003, 1988.

1987

- Arnoldy, R.L., R. Rajashekar, L.J. Cahill Jr., M.J. Engebretson, T.J. Rosenberg, and S.B. Mende, "Simultaneous measurement of aurora-related, irregular magnetic pulsations at northern and southern high latitudes," *J. Geophys. Res.*, 92(A11), 12221–12232, doi:10.1029/JA092iA11p12221, 1987.
- Basinka, E.M., W.J. Burke, S. Basu, F.J. Rich, and P.F. Fougere, "Low-Frequency Modulation of Plasmas and Soft Electron Precipitation Near the Dayside Cusp," *J. Geophys. Res.*, Vol. 92, No. A4, 3304–3314, 1987.
- Basu, J.R. Jasperse, R.M. Robinson, R.R. Vondrak, and D.S. Evans, "Linear Transport Theory of Auroral Proton Precipitation: A Comparison with Observations," *J. Geophys. Res.*, Vol. 92, No. A6, 5920–5932, 1987.
- Bering, E.A., III, and J.R. Benbrook, "Conjugate Ionospheric Electric Field Measurements," *Ann. Geophys.*, Vol. 5A, No. 6, 484–502, 1987.
- de la Beaujardi re, O., D.S. Evans, Y. Kamide, and R.P. Lepping, "Response of Auroral Oval Precipitation and Magnetospheric Convection to Changes in the Interplanetary Magnetic Field," *Ann. Geophys.*, Vol. 5A, No. 6, 519–526, 1987.
- Earle G.D., and M.C. Kelley, "Spectral Studies of the Sources of Ionospheric Electric Fields," *J. Geophys. Res.*, Vol. 92, No. A1, 213–224, 1987.

- Erlandson, R.E., L.J. Cahill, Jr., C.J. Pollock, R.L. Arnoldy, W.A. Scales, and P.M. Kintner, "Initial Results from the Operation of Two Argon Ion Generators in the Auroral Ionosphere," *J. Geophys. Res.*, Vol. 92, No. A5, 4601–4616, 1987.
- Hecht, J.H., R.L. Walterscheid, G.G. Sivjee, A.B. Christensen, and J.B. Pranke, "Observations of Wave-Driven Fluctuations of *OH* Nightglow Emission from Sondre Stromfjord, Greenland," *J. Geophys. Res.*, Vol. 92, No. A6, 6091–6099, 1987.
- Johnson, R.M., V.B. Wickwar, R.G. Roble, and J.G. Luhmann, "Lower-Thermospheric Winds at High Latitude: Chatanika Radar Observations," *Ann. Geophys.*, Vol. 5A, No. 6, 383–404, 1987.
- Jørgensen, T.S., K. Lassen, W.J. Heikkila, V.B. Wickwar, and G. Haerendel, "A Substorm Resulting from Energy Storage in the Magnetosphere," *Ann. Geophys.*, Vol. 5A, No. 6, 511–518, 1987.
- Lanzerotti, L.J., R.D. Hunsucker, D. Rice, C.G. MacLennan, L.V. Medford, and A. Wolfe, "Studies of a Cusp-Region Hydromagnetic Wave Event with Magnetometers and Incoherent Scatter Radar," *Ann. Geophys.*, Vol. 5A, No. 6, 479–484, 1987.
- Lanzerotti, L.J., R.D. Hunsucker, D. Rice, L.C. Lee, A. Wolfe, C.G. MacLennan, and L.V. Medford, "Ionosphere and Ground-Based Response to Field-Aligned Currents near the Magnetospheric Cusp Regions," *J. Geophys. Res.*, Vol. 92, No. A7, 7739–7743, 1987.
- McCormac, F.G., T.L. Kileen, J.P. Thayer, G. Hernandez, C.R. Tschan, J.-J. Ponthieu, and N.W. Spencer, "Circulation of the polar thermosphere during geomagnetically quiet and active times as observed by dynamics explorer 2," *J. Geophys. Res.*, Vol. 92, 10133–10139, 1987.
- Meriwether, J.W., and P. Shih, "On the Nighttime Signatures of Thermospheric Winds Observed at Sondrestrom, Greenland, as Correlated with Interplanetary Magnetic Field Parameters," *Ann. Geophys.*, Vol. 5A, No. 6, 329–336, 1987.
- Mikkelsen, I.S., M.F. Larsen, M.C. Kelley, J. Vickrey, E. Friis-Christensen, J. Meriwether, and P. Shih, "Simultaneous Measurements of the Thermospheric Wind Profile at Three Separate Positions in the Dusk Auroral Oval," *J. Geophys. Res.*, Vol. 92, No. A5, 4639–4648, 1987.
- Robinson, R.M., R.R. Vondrak, and E. Friis-Christensen, "Ionospheric Currents Associated with a Sun-Aligned Arc Connected to the Auroral Oval," *Geophys. Res. Lett.*, Vol. 14, No. 6, 656–659, 1987.
- Robinson, R.M., R.R. Vondrak, K. Miller, T. Dabbs, and D. Hardy, "On Calculating Ionospheric Conductances from the Flux and Energy of Precipitating Electrons," *J. Geophys. Res.*, Vol. 92, No. A3, 2565–2569, 1987.
- Ruohoniemi, J.M., R.A. Greenwald, K.B. Baker, J.P. Villain, and M.A. McCready, "Drift Motions of Small-Scale Irregularities in the High-Latitude *F* Region: An Experimental Comparison with Plasma Drift Motion," *J. Geophys. Res.*, Vol. 92, No. A5, 4553–4564, 1987.
- Schunk, R.W., "Interactions Between the Polar Ionosphere and Thermosphere," *Physica Scripta*, Vol. T18, 256–275, 1987.
- Senior, C., and M. Blanc, "Convection in the Inner Magnetosphere: Model Predictions and Data," *Ann. Geophys.*, Vol. 5A, No. 6, 405–420, 1987.

- Senior, C., J.R. Sharber, O. de la Beaujardière, R.A. Heelis, D.S. Evans, J.D. Winningham, M. Sugiura, and W.R. Hoegy, "E and F Region Study of the Evening Sector Auroral Oval: A Chatanika/Dynamics Explorer 2/NOAA 6 Comparison," *J. Geophys. Res.*, Vol. 92, No. A3, 2477–2494, 1987.
- Vallance–Jones A., R.L. Gattinger, P. Shih, J.W. Meriwether, V.B. Wickwar, and J.D. Kelly, "Optical and Radar Characterization of a Short-Lived Auroral Event at High Latitude," *J. Geophys. Res.*, Vol. 92, No. A5, 4575–4589, 1987.

1986

- Cahill, L.J. Jr., R.L. Arnoldy, D. Behm, and M.A. McCready, "An Auroral Arc in the Late Evening Plasma Flow Reversal," *J. Geophys. Res.*, Vol. 91, No. A2, 1585–1597, 1986.
- Clauer C.R., and P.M. Banks, "Relationship of the Interplanetary Electric Field to the High-Latitude Ionospheric Electric Field and Currents: Observations and Model Simulation," *J. Geophys. Res.*, Vol. 91, No. A6, 6959–6971, 1986.
- Clauer, C.R., "Field-Aligned Currents and Ionospheric Electric Fields in the Vicinity of the Dayside Polar Cleft: Observations and Simulations," Proceedings of the Finnish-American Auroral Workshop, E. Turunen and E. Kataja, Eds., Report No. 45, 1986.
- de la Beaujardière, O., and V.B. Wickwar, "IMF Control of Plasma Drift, Ion Temperature and Neutral Wind," Proceedings of the Finnish-American Auroral Workshop, E. Turunen and E. Kataja, Eds., Report No. 45, 1986.
- de la Beaujardière, O., V.B. Wickwar, and J.H. King, "Sondrestrom Radar Observations of the Effect of the IMF B_y Component on Polar Cap Convection," Solar Wind-Magnetosphere Coupling, Y. Kamide and J.A. Slavin, Eds., 495–505, Terra Scientific Publishing Company, Tokyo, 1986.
- Friis-Christensen, E., "Solar Wind Control of the Polar Cusp," Solar Wind-Magnetosphere Coupling, Y. Kamide and J.A. Slavin, Eds., 423–440, Terra Scientific Publishing Company, Tokyo, 1986.
- Green, J.L., J.H. Waite, Jr., C.R. Chappell, M.O. Chandler, J.R. Doupnik, P.G. Richards, R. Heelis, S.D. Shawhan, and L.H. Brace, "Observations of Ionospheric Magnetospheric Coupling: DE and Chatanika Coincidences," *J. Geophys. Res.*, Vol. 91, No. A5, 5803–5815, 1986.
- Ølesen, J.K., P. Stauning, and R.T. Tsunoda, "On a Unified Interpretation of the Polar Slant E Condition (SEC) and Other High E Field Related Phenomena," *Radio Sci.*, Vol. 21, No. 1, 127–140, 1986.
- Rasmussen, C.E., R.W. Schunk, J.J. Sojka, V.B. Wickwar, O. de la Beaujardière, J. Foster, J. Holt, D.S. Evans, and E. Nielsen, "Comparison of Simultaneous Chatanika and Millstone Hill Observations with Ionospheric Model Predictions," *J. Geophys. Res.*, Vol. 91, No. A6, 6986–6998, 1986.
- Robinson, R.M., C.R. Clauer, O. de la Beaujardière, J.D. Kelly, and D.S. Evans, "IMF B_y Control of Ionization and Electric Fields Measured by the Sondrestrom Radar," Solar Wind-Magnetosphere Coupling, Y. Kamide and J.A. Slavin, Eds., 507–518, Terra Scientific Publishing Company, Tokyo, 1986.
- Sojka, J.J., and R.W. Schunk, "A Theoretical Study of the Production and Decay of Localized Electron Density Enhancements in the Polar Ionosphere," *J. Geophys. Res.*, Vol. 91, No. A3, 3245–3253, 1986.

Sojka, J.J., and R.W. Schunk, "Problems With Deducing Ionospheric Plasma Convection Patterns," *J. Geophys. Res.*, Vol. 91, No. A1, 259–269, 1986.

Weber, E.J., J.A. Klobuchar, J. Buchau, H.C. Carlson, Jr., R.C. Livingston, O. de la Beaujardière, M. McCready, J.G. Moore, and G.J. Bishop, "Polar Cap *F* Layer Patches: Structure and Dynamics," *J. Geophys. Res.*, Vol. 91, No. A11, 12121–12129, 1986.

1985

Carlson, H.C., Jr., T.L. Killeen, R. Heelis, A. Egeland, J.D. Kelly, D.J. McEwen, and T.J. Rosenberg, "Future Cusp Experiments and their Coordination," in The Polar Cusp, J.A. Holtet and A. Egeland, Eds., NATO ASI Series C: Mathematical and Physical Sciences, Vol. 145, 397–410, D. Reidel Publishing Co., 1985.

de la Beaujardière, O., J.C., V.B. Wickwar, G. Caudal, J.M. Holt, J.D. Craven, L.A. Frank, L.H. Brace, D.S. Evans, J.D. Winningham, and R.A. Heelis, "Universal Time Dependence of Nighttime *F* Region Densities at High Latitudes," *J. Geophys. Res.*, Vol. 90, No. A5, 4319–4332, 1985, and Correction in *J. Geophys. Res.*, Vol. 91, No. A1, 381–382, 1985.

de la Beaujardière, O., V.B. Wickwar, J.D. Kelly, and J.H. King, "Effect of the Interplanetary Magnetic Field *Y* Component on the High-Latitude Nightside Convection," *Geophys. Res. Lett.*, Vol. 12, No. 7, 461–464, 1985.

Foster, J.C., J.M. Holt, J.D. Kelly, and V.B. Wickwar, "High-Resolution Observations of Electric Fields and *F* Region Plasma Parameters in the Cleft Ionosphere," in The Polar Cusp, J.A. Holtet and A. Egeland, Eds., NATO ASI Series C: Mathematical and Physical Sciences, Vol. 145, 349–364, D. Reidel Publishing Co., 1985.

Kaufmann, R.L., R.L. Arnoldy, T.E. Moore, P.M. Kintner, L.J. Cahill, Jr., and D.N. Walker, "Heavy Ion Beam-Ionosphere Interactions: Electron Acceleration," *J. Geophys. Res.*, Vol. 90, No. A10, 9595–9614, 1985.

Kelley, M., R. Livingston, and M. McCready, "Large Amplitude Thermospheric Oscillations Induced by an Earthquake," *Geophys. Res. Lett.*, Vol. 12, No. 9, 577–580, 1985.

Kelly, J.D., R.T. Tsunoda, J.K. Ølesen and P. Stauning, "On the Relationship of *F* Region Structure in the Dayside Auroral Oval to HF Backscatter Signatures Attributed to the Polar Cusp," in Propagation Effects on Military Systems in the High Latitude Region, [Proceedings of the 36th Symposium of the Electromagnetic Wave Propagation Panel held (Fairbanks, Alaska) 3–7 June 1985] H. Soicher, Ed., 4.4-1 to 4.4-10, Specialized Printing Services Limited, November 1985.

Kelly, J.D., "Incoherent-Scatter Radar Observations of the Cusp," in The Polar Cusp, J.A. Holtet and A. Egeland, Eds., NATO ASI Series C: Mathematical and Physical Sciences, Vol. 145, 337–348, D. Reidel Publishing Co., 1985.

Reese, M.H., and G.J. Romick, "Atomic Nitrogen in Aurora: Production, Chemistry and Optical Emissions," *J. Geophys. Res.*, Vol. 90, No. A10, 9871–9879, 1985.

Robinson, R.M., S.B. Mende, R.R. Vondrak, J.U. Kozyra, and A.F. Nagy, "Radar and Photometric Measurements of an Intense Type A Red Aurora," *J. Geophys. Res.*, Vol. 90, No. A1, 457–466, 1985.

- Robinson, R.M., and R.R. Vondrak, "Characteristics and Sources of Ionization in the Continuous Aurora," *Radio Sci.*, Vol. 20, No. 3, 447–455, 1985.
- Robinson, R.M., F. Rich, and R.R. Vondrak, "Chatanika Radar and S3-2 Measurements of Auroral Zone Electrodynamics in the Midnight Sector," *J. Geophys. Res.*, Vol. 90, No. A9, 8487–8499, 1985.
- Robinson, R.M., R.R. Vondrak, and T.A. Potemra, "Auroral Zone Conductivities within the Field-Aligned Current Sheets," *J. Geophys. Res.*, Vol. 90, No. A10, 9688–9696, 1985.
- Robinson, R.M., R.T. Tsunoda, J.F. Vickrey, and L. Guerin, "Sources of *F* Region Ionization Enhancements in the Nighttime Auroral Zone," *J. Geophys. Res.*, Vol. 90, No. A8, 7533–7546, 1985.
- Sojka, J.J., and R.W. Schunk, "Theoretical Study of Anomalously High *F* Region Peak Altitudes in the Polar Ionosphere," *J. Geophys. Res.*, Vol. 90, No. A8, 7525–7532, 1985.
- Stauning, P., J.K. Ølesen, and R.T. Tsunoda, "Observations of the Unstable *E* Region in the Polar Cusp," in The Polar Cusp, J.A. Holtet and A. Egeland, Eds., NATO ASI Series C: Mathematical and Physical Sciences, Vol. 145, 365–376, D. Reidel Publishing Co., 1985.
- Vondrak, R., and R. Robinson, "Inference of High-Latitude Ionization and Conductivity from AE-C Measurements of Auroral Electron Fluxes," *J. Geophys. Res.*, Vol. 90, No. A8, 7505–7512, 1985.
- Weber E.J., and J. Buchau, "Observations of Plasma Structure and Transport at High Latitudes," in The Polar Cusp, J.A. Holtet and A. Egeland, Eds., NATO ASI Series C: Mathematical and Physical Sciences, Vol. 145, 279–292, D. Reidel Publishing Co., 1985.
- Weber, E.J., R.T. Tsunoda, J. Buchau, R.E. Sheehan, D.J. Strickland, W. Whiting, and J.G. Moore, "Coordinated Measurements of Auroral Zone Plasma Enhancements," *J. Geophys. Res.*, Vol. 90, No. A7, 6497–6513, 1985.
- Yasuhara, F., Y. Kamide, and J.F. Vickrey, "On the Efficiency of the Cowling Mechanism in the Auroral Electrojet," *Geophys. Res. Lett.*, Vol. 12, No. 6, 389–392, 1985.

1984

- Carlson, Jr., H.C., V.B. Wickwar, E.J. Weber, J. Buchau, J.G. Moore, and W. Whiting, "Plasma Characteristics of Polar Cap *F* Layer Arcs," *Geophys. Res. Lett.*, Vol. 11, No. 9, 895–898, 1984.
- Caudal, G., O. de la Beaujardière, D. Alcaydé, J. Holt, and G. Lejeune, "Simultaneous Measurements of the Electrodynamics Parameters of the Auroral Ionosphere by the EISCAT, Chatanika, and Millstone Hill Radars," *Ann. Geophys.*, Vol. 2, 369–376, 1984.
- Clauer, C.R., P.M. Banks, A.Q. Smith, T.S. Jørgensen, E. Friis-Christensen, S. Vennerstrøm, V.B. Wickwar, J.D. Kelly, and J. Doupnik, "Observation of Interplanetary Magnetic Field and of Ionospheric Plasma Convection in the Vicinity of the Dayside Polar Cleft," *Geophys. Res. Lett.*, Vol. 11, No. 9, 891–894, 1984.
- de la Beaujardière, O., and R.A. Heelis, "Velocity Spike at the Poleward Edge of the Auroral Zone," *J. Geophys. Res.*, Vol. 89, No. A3, 1627–1634, 1984.
- de la Beaujardière, O., V.B. Wickwar, M.J. Baron, J. Holt, R.M. Wand, W.L. Oliver, P. Bauer, M. Blanc, C. Senior, D. Alcaydé, G. Caudal, J. Foster, E. Nielsen, and R. Heelis, "MITHRAS: A Brief Description," *Radio Sci.*, Vol. 19, No. 2, 665–673, 1984.

- Duboin, M.L., and Y. Kamide, "Latitudinal Variations of Joule Heating Due to the Auroral Electrojets," *J. Geophys. Res.*, Vol. 89, No. A1, 245–251, 1984.
- Foster, J.C., "Ionospheric Signatures of Magnetospheric Convection," *J. Geophys. Res.*, Vol. 89, No. A2, 855–865, 1984.
- Foster, J.C., and J.R. Doupnik, "Plasma Convection in the Vicinity of the Dayside Cleft," *J. Geophys. Res.*, Vol. 89, No. A10, 9107–9113, 1984.
- Herero, F.A., G.H. Mayr, I. Harris, F. Varosi, and J.W. Meriwether, "Thermospheric Gravity Waves Near the Source: Comparison of Variations in Neutral Temperature and Vertical Velocity at Sondre Stromfjord," *Geophys. Res. Lett.*, Vol. 11, No. 9, 939–942, 1984.
- Jørgensen, T.S., E. Friis-Christensen, V.B. Wickwar, J.D. Kelly, C.R. Clauer, and P.M. Banks, "On the Reversal from 'Sunward' to 'Antisunward' Plasma Convection in the Dayside High Latitude Ionosphere," *Geophys. Res. Lett.*, Vol. 11, No. 9, 887–890, 1984.
- Kamide, Y., R.M. Robinson, S.-I. Akasofu, and T.A. Potemra, "Aurora and Electrojet Configuration in the Early Morning Sector," *J. Geophys. Res.*, Vol. 89, No. A1, 389–393, 1984.
- Kelly, J.D., and J.F. Vickrey, "*F* Region Ionospheric Structure Associated with Antisunward Flow Near the Dayside Polar Cusp," *Geophys. Res. Lett.*, Vol. 11, No. 9, 907–910, 1984.
- Kofman, W., and V.B. Wickwar, "Very High Electron Temperatures in the Daytime *F* Region at Sondrestrom," *Geophys. Res. Lett.*, Vol. 11, No. 9, 919–922, 1984.
- Mende, S.B., R.H. Eather, M.H. Rees, R.R. Vondrak, and R.M. Robinson, "Optical Mapping of Ionospheric Conductance," *J. Geophys. Res.*, Vol. 89, No. A3, 1755–1763, 1984.
- Meriwether, J.W., P. Shih, T.L. Killeen, V.B. Wickwar, and R.G. Roble, "Nighttime Thermospheric Winds Over Sondre Stromfjord, Greenland," *Geophys. Res. Lett.*, Vol. 11, No. 9, 931–935, 1984.
- Murdin, J., J.J. Sojka, and R.W. Schunk, "Diurnal Transport Effects on the *F* Region Plasma at Chatanika Under Quiet and Disturbed Conditions," *Planet. Space Sci.*, Vol. 32, No. 1, 47–61, 1984.
- Oliver, W.L., J.C. Foster, J.M. Holt, G.B. Lorient, V.B. Wickwar, J.D. Kelly, O. de la Beaujardière, P.F. Bythrow, C.I. Meng, F.J. Rich, and R.E. Huffman, "Initial Millstone Hill, Sondrestrom, and HILAT Observations of Thermospheric Temperatures and Frictional Heating," *Geophys. Res. Lett.*, Vol. 11, No. 9, 911–914, 1984.
- Rees, M.H., and V.J. Abreu, "Auroral Photometry from the Atmosphere Explorer Satellite," *J. Geophys. Res.*, Vol. 89, No. A1, 317–326, 1984.
- Robinson, R.M., " K_p Dependence of Auroral Zone Field-Aligned Current Intensity," *J. Geophys. Res.*, Vol. 89, No. A3, 1743–1748, 1984.
- Robinson, R.M., and R.R. Vondrak, "Measurements of *E* Region Ionization and Conductivity Produced by Solar Illumination at High Latitudes," *J. Geophys. Res.*, Vol. 89, No. A6, 3951–3956, 1984.
- Robinson, R.M., D.S. Evans, T.A. Potemra, and J.D. Kelly, "Radar and Satellite Measurements of an *F* Region Ionization Enhancement in the Post-Noon Sector," *Geophys. Res. Lett.*, Vol. 11, No. 9, 899–902, 1984.
- Springer, K., and A. Grafe, "Radio Aurora Observations at Medium Latitudes over Two Solar Cycles," *J. Atmos. Terr. Phys.*, Vol. 46, No. 8, 673–684, 1984.

- Stauning, P., "Absorption of Cosmic Noise in the *E* Region During Electron Heating Events: A New Class of Riometer Absorption Events," *Geophys. Res. Lett.*, Vol. 11, No. 12, 1184–1187, 1984.
- Vennerstrøm, V., E. Friis-Christensen, T.S. Jørgensen, O. Rasmussen, C.R. Clauer, and V.B. Wickwar, "Ionospheric Currents and *F* Region Plasma Boundaries Near the Dayside Cusp," *Geophys. Res. Lett.*, Vol. 11, No. 9, 903–906, 1984.
- Villain, J.P., R.A. Greenwald, and J.F. Vickrey, "HF Ray Tracing at High Latitudes Using Measured Meridional Electron Density Distributions," *Radio Sci.*, Vol. 19, No. 1, 359–374, 1984.
- Wickwar, V.B., "Thermospheric Neutral Wind at -39° Azimuth During the Daytime Sector at Sondrestrom," *Geophys. Res. Lett.*, Vol. 11, No. 9, 927–930, 1984.
- Wickwar, V.B., and J.W. Meriwether, "The Polar Ionosphere: Editorial," *Geophys. Res., Lett.*, Vol. 11, No. 9, 881–882, 1984.
- Wickwar, V.B., and W. Kofman, "Dayside Red Auroras at Very High Latitudes: The Importance of Thermal Excitation," *Geophys. Res. Lett.*, Vol. 11, No. 9, 923–926, 1984.
- Wickwar, V.B., J.W. Meriwether, P.B. Hays, and A.F. Nagy, "The Meridional Thermospheric Neutral Wind Measured by Radar and Optical Techniques in the Auroral Region," *J. Geophys. Res.*, Vol. 89, No. A12, 10987–10998, 1984.
- Wickwar, V.B., J.D. Kelly, O. de la Beaujardière, C.A. Leger, F. Steenstrup, and C.H. Dawson, "Sondrestrom Overview," *Geophys. Res. Lett.*, Vol. 11, No. 9, 883–886, 1984.

1983

- Ahn, B.H., R.M. Robinson, Y. Kamide, and S.-I. Akasofu, "Electric Conductivities, Electric Fields, and Auroral Particle Energy Injection Rate in the Auroral Ionosphere and Their Empirical Relations to the Horizontal Magnetic Disturbances," *Planet. Space Sci.*, Vol. 31, No. 6, 641–653, 1983.
- Baker, K.D., R.A. Greenwald, and R.T. Tsunoda, "Very High Latitude *F* Region Irregularities Observed by HF-Radar Backscatter," *Geophys. Res. Lett.*, Vol. 10, No. 9, 904–907, 1983.
- Baron, M.J., and R.H. Wand, "*F* Region Ion Temperature Enhancements Resulting from Joule Heating," *J. Geophys. Res.*, Vol. 88, No. A5, 4114–4118, 1983.
- Baron, M.J., C.J. Heinselman, and J. Petriceks, "Solar Cycle and Seasonal Variations of the Ionosphere Observed with the Chatanika Incoherent Scatter Radar," *Radio Sci.*, Vol. 18, No. 6, 895–900, 1983.
- Blanc, M., D. Alcaydé, and J.D. Kelly, "Magnetospheric Convection Effects at Mid-Latitudes, 2. A Coordinated Chatanika/Saint-Santin Study of the April 10–14, 1978, Magnetic Storm," *J. Geophys. Res.*, Vol. 88, No. A1, 224–234, 1983.
- de la Beaujardière, O., J. Holt, and E. Nielsen, "Early MITHRAS Results: The Electric Field Response to Substorms," *Radio Sci.*, Vol. 18, No. 6, 981–987, 1983.
- Foster, J.C., "An Empirical Electric Field Model Derived from Chatanika Radar Data," *J. Geophys. Res.*, Vol. 88, No. A2, 981–987, 1983.
- Gonzales, C.A., M.C. Kelley, R.A. Behnke, J.F. Vickrey, R. Wand, and J. Holt, "On the Latitudinal Variations of the Ionospheric Electric Field During Magnetospheric Disturbances," *J. Geophys. Res.*, Vol. 88, No. A11, 9135–9144, 1983.

- Greenwald, R.A., "Electric Fields in the Ionosphere and Magnetosphere," *Space Sci. Revs.*, Vol. 34, 305–315, 1983.
- Hedin, A.E., "A Revised Thermospheric Model Based on Mass Spectrometer and Incoherent Scatter Data: MSIS-83," *J. Geophys. Res.*, 88(A12), 10,170–10,188, 1983.
- Heelis, R.A., J.C. Foster, O. de la Beaujardière, and J. Holt, "Multistation Measurements of High-Latitude Ionospheric Convection," *J. Geophys. Res.*, Vol. 88, No. A12, 10111–10121, 1983.
- Kamide, Y., and J.F. Vickrey, "Relative Contribution of Ionospheric Conductivity and Electric Field to the Auroral Electrojets," *J. Geophys. Res.*, Vol. 88, No. A10, 7989–7996, 1983.
- Kamide, Y., and J.F. Vickrey, "Variability of the Harang Discontinuity as Observed by the Chatanika Radar and the IMS Alaska Magnetometer Chain," *Geophys. Res. Lett.*, Vol. 10, No. 2, 159–162, 1983.
- Kelly, J.D., "Sondrestrom Radar—Initial Results," *Geophys. Res., Lett.*, Vol. 10, No. 11, 1112–1115, 1983.
- Kelly, J.D., C.J. Heinselman, and J. Petriceks, "High-Latitude Exospheric Temperatures Observed Over a Solar Cycle," *Radio Sci.*, Vol. 18, No. 6, 901–905, 1983.
- Lathuillere, C., V.B. Wickwar, and W. Kofman, "Incoherent Scatter Measurements of Ion-Neutral Collision Frequencies and Temperatures in the Lower Thermosphere of the Auroral Region," *J. Geophys. Res.*, Vol. 88, No. A12, 10137–10144, 1983.
- Luhmann, J.G., R.M. Johnson, M.J. Baron, B.B. Balsley, and A.C. Riddle, "Observations of the High-Latitude Ionosphere with the Poker Flat MST Radar: Analyses Using Simultaneous Chatanika Radar Measurements," *J. Geophys. Res.*, Vol. 88, No. A12, 10239–10245, 1983.
- Rino, C.L., R.C. Livingston, R.T. Tsunoda, R.M. Robinson, J.F. Vickrey, C. Senior, M.D. Cousins, J. Owen, and J.A. Klobuchar, "Recent Studies of the Structure and Morphology of Auroral Zone *F* Region Irregularities," *Radio Sci.*, Vol. 18, No. 6, 1167–1180, 1983.
- Robinson, R.M., "Coordinated Ground and Satellite Observations of Conductivities, Electric Fields and Field-Aligned Currents," in Magnetospheric Currents, Geophysical Monograph, Vol. 28, 192–199, 1983.
- Sojka, J.J., J.D. Foster, P.M. Banks, J.R. Doupnik, "Mapping electrostatic potentials from the ionosphere to the magnetosphere," *Plan. and Space Sci.*, 31, 1329–1333, [doi:10.1016/0032-0633\(83\)90069-7](https://doi.org/10.1016/0032-0633(83)90069-7), 1983.
- Vickrey, J.F., and M.C. Kelley, "Irregularities and Instabilities in the Auroral *F* Region," in High Latitude Space Plasma Physics, B. Hultqvist and T. Hagfors, Eds., 95–113, Plenum Publishing Corp., 1983.
- Vondrak, R., "Incoherent-Scatter Radar Measurements of Electric Field and Plasma in the Auroral Ionosphere," in High Latitude Space Plasma Physics, B. Hultqvist and T. Hagfors, Eds., 73–93, Plenum Publishing Corp., 1983.
- Vondrak, R.R., J.S. Murphree, C.D. Anger, and D.D. Wallis, "Ionospheric Characteristics of a Detached Arc in the Evening-Sector Trough," *Geophys. Res. Lett.*, Vol. 10, No. 7, 561–564, 1983.
- Vondrak, R.R., S. Harris, and S. Mende, "Ground-Based Observations of Subauroral Energetic-Electron Arcs," *Geophys. Res. Lett.*, Vol. 10, No. 7, 557–560, 1983.

1982

- de la Beaujardière, O., and R. Vondrak, "Chatanika Radar Observations of the Electrostatic Potential Distribution of an Auroral Arc," *J. Geophys. Res.*, Vol. 87, No. A2, 797–809, 1982.
- Foster, J.C., P.M. Banks, and J. Doupnik, "Electrostatic Potential in the Auroral Ionosphere Derived from Chatanika Radar Observations," *J. Geophys. Res.*, Vol. 87, No. A9, 7513–7524, 1982.
- Goldberg, R.A., J.R. Barcus, L.A. Treinish, and R.R. Vondrak, "Mapping of Auroral X-Rays from Rocket Overflights," *J. Geophys. Res.*, Vol. 87, No. A4, 2509–2524, 1982.
- Heppner, J.P., and M.L. Miller, "Thermospheric Winds at High Latitudes from Chemical Release Observations," *J. Geophys. Res.*, Vol. 82, No. A3, 1633–1647, 1982.
- Hunsucker, R.D., "Atmospheric Gravity Waves Generated in the High-Latitude Ionosphere: A Review," *Revs. Geophys. and Space Phys.*, Vol. 20, No. 2, 293–315, 1982.
- Kelley, M.C., J.F. Vickrey, C.W. Carlson, and R. Torbert, "On the Origin and Spatial Extent of High Latitude *F* Region Irregularities," *J. Geophys. Res.*, Vol. 87, No. A6, 4469–4475, 1982.
- Moore, T.E., R.L. Arnoldy, R.L. Kaufmann, L.J. Cahill, Jr., P.M. Kintner, and D.N. Walker, "Anomalous Auroral Electron Distributions Due to an Artificial Ion Beam in the Ionosphere," *J. Geophys. Res.*, Vol. 84, No. A9, 7569–7579, 1982.
- Muldrew, D.B., and J.F. Vickrey, "High-Latitude *F* Region Irregularities Observed Simultaneously with ISIS 1 and the Chatanika Radar," *J. Geophys. Res.*, Vol. 87, No. A10, 8263–8272, 1982.
- Rino, C.L., and J.F. Vickrey, "Recent Results in Auroral-Zone Scintillation Studies," *J. Atmos. Terr. Phys.*, Vol. 44, No. 10, 875–887, 1982.
- Robinson, R.M., R.R. Vondrak, and T.A. Potemra, "Electrodynamic Properties of the Evening Sector Ionosphere Within the Region 2 Field-Aligned Current Sheet," *J. Geophys. Res.*, Vol. 87, No. A2, 731–741, 1982.
- Senior, C., R.M. Robinson, and T.A. Potemra, "Relationship Between Field-Aligned Currents, Diffuse Auroral Precipitation and the Westward Electrojet in the Early Morning Sector," *J. Geophys. Res.*, Vol. 87, No. A12, 10469–10477, 1982.
- Sojka, J.J., and R.W. Schunk, "Predicted Diurnal Variations of Electron Density for Three High-Latitude Incoherent-Scatter Radars," *Geophys. Res. Lett.*, Vol. 9, No. 2, 143–146, 1982.
- St.-Maurice, J.-P., K. Schlegel, "Estimates of Plasma Wave Amplitudes in the Turbulent High-Latitude *E* Region Using Electron Temperature Measurements," *J. Geophys. Res.*, Vol. 87, No. A7, 5197–5201, 1982.
- Vickrey, J.F., R.R. Vondrak, and S.J. Matthews, "Energy Deposition by Precipitating Particles and Joule Dissipation in the Auroral Ionosphere," *J. Geophys. Res.*, Vol. 87, No. A7, 5184–5196, 1982.
- Vondrak, R.R., and F.J. Rich, "Simultaneous Chatanika Radar and S3-2 Satellite Measurements of Ionospheric Electrodynamics in the Diffuse Aurora," *J. Geophys. Res.*, Vol. 87, No. A8, 6173–6185, 1982.

1981

- Banks, P.M., J.C. Foster, and J.R. Douppnik, "Chatanika Radar Observations Relating to the Latitudinal and Local Time Variations of Joule Heating," *J. Geophys. Res.*, Vol. 86, No. A8, 6869–6878, 1981.
- de la Beaujardière, O., R. Vondrak, R. Heelis, W. Hanson, and R. Hoffman, "Auroral Arc Electrodynamics Parameters Measured by AE-C and the Chatanika Radar," *J. Geophys. Res.*, Vol. 86, No. A6, 4671–4685, 1981.
- Foster, J.C., J.R. Douppnik, and G.S. Stiles, "Ionospheric Convection and Currents in the Midnight Sector on November 8, 1979," *J. Geophys. Res.*, Vol. 86, No. A4, 2143, 1981.
- Foster, J.C., J.R. Douppnik, and G.S. Stiles, "Large Scale Patterns of Auroral Ionospheric Convection Observed with the Chatanika Radar," *J. Geophys. Res.*, Vol. 86, No. A13, 11357–11371, 1981.
- Harel, M., R.A. Wolf, R.W. Spiro, P.H. Reigg, C.-K. Chen, W.J. Burke, F.J. Rich, and M. Smiddy, "Quantitative Simulation of a Magnetospheric Substorm, 2. Comparison with Observations," *J. Geophys. Res.*, Vol. 86, No. A4, 2242–2260, 1981.
- Hargreaves, J.K., and R.D. Hunsucker, "Night-Time Enhancements of Ionospheric Electron Content at $L=4$ During Substorms," *Geophys. Res. Lett.*, Vol. 8, No. 7, 815–818, 1981.
- Holzworth, R., J. Wygant, F. Mozer, C. Gonzales, R. Greenwald, M. Blanc, J. Vickrey, and A. Kishi, "Global Ionospheric Electric Field Measurements in April 1978," *J. Geophys. Res.*, Vol. 86, No. A8, 6859–6868, 1981.
- Kelly, J.D., and V.B. Wickwar, "Radar Measurements of High-Latitude Ion Composition Between 140 and 300 km altitude," *J. Geophys. Res.*, Vol. 86, No. A9, 7617–7626, 1981.
- Mikkelsen, I.S., T.S. Jørgensen, M.C. Kelley, M.F. Larsen, and E. Pereira, "Neutral Winds and Electric Fields in the Dusk Auroral Oval, 2. Theory and Model," *J. Geophys. Res.*, Vol. 86, No. A3, 1525–1536, 1981.
- Mikkelsen, I.S., T.S. Jørgensen, M.C. Kelley, M.F. Larsen, E. Pereira, and J. Vickrey, "Neutral Winds and Electric Fields in the Dusk Auroral Oval, 1. Measurements," *J. Geophys. Res.*, Vol. 86, No. A3, 1513–1524, 1981.
- Murdin, J., "E Region Temperature and Ion-Neutral Collision Frequency from Incoherent Scatter Radar Monopulse ACF Measurements," *J. Atmos. Terr. Phys.*, Vol. 43, No. 1, 13–21, 1981.
- Newman, A.L., and E.S. Oran, "The Effects of Electron-Neutral Collisions on the Intensity of Plasma Lines," *J. Geophys. Res.*, Vol. 86, No. A6, 4790–4794, 1981.
- Oran, E.S., V.B. Wickwar, W. Kofman, and A. Newman, "Auroral Plasma Lines: A First Comparison of Theory and Experiment," *J. Geophys. Res.*, Vol. 86, No. A1, 199–205, 1981.
- Pulliam, D.M., H.R. Anderson, K. Stamnes, and M.H. Rees, "Auroral Electron Acceleration and Atmospheric Interactions: (1) Rocket-Borne Observations and (2) Scattering Calculations," *J. Geophys. Res.*, Vol. 86, No. A4, 2397–2404, 1981.
- Robinson, R.M., A.E. Bering, R.R. Vondrak, H.R. Anderson, and P.A. Cloutier, "Simultaneous Rocket and Radar Measurements of Currents in an Auroral Arc," *J. Geophys. Res.*, Vol. 86, No. A9, 7703–7717, 1981.

- Schlegel, K., and J.-P. St.-Maurice, "Anomalous Heating of the Polar *E* Region by Unstable Plasma Waves, I. Observations," *J. Geophys. Res.*, Vol. 86, No. A3, 1447–1452, 1981.
- Sears, R.D., and R.R. Vondrak, "Optical Emissions and Ionization Profiles During an Intense Pulsating Aurora," *J. Geophys. Res.*, Vol. 86, No. A8, 6853–6858, 1981.
- Sojka, J.J., W.J. Raitt, and R.W. Schunk, "Theoretical Predictions for Ion Composition in the High-Latitude Winter *F* Region for Solar Minimum and Low Magnetic Activity," *J. Geophys. Res.*, Vol. 86, No. A4, 2206–2216, 1981.
- St.-Maurice, J.-P., K. Schlegel, and P. Banks, "Anomalous Heating of the Polar *E* Region by Unstable Plasma Waves, II. Theory," *J. Geophys. Res.*, Vol. 86, No. A3, 1453–1462, 1981.
- Venkat Raman, R.S., J.-P. St.-Maurice, and R.S.B. Ong, "Incoherent Scattering of Radar Waves in the Auroral Ionosphere," *J. Geophys. Res.*, Vol. 86, No. A6, 4751–4762, 1981.
- Vickrey, J.F., R.R. Vondrak, and S. Matthews, "The Diurnal and Latitudinal Variation of Auroral-Zone Ionospheric Conductivity," *J. Geophys. Res.*, Vol. 86, No. A1, 65–75, 1981.
- Vondrak, R.R., "Chatanika Radar Measurements of the Electrical Properties of Auroral Arcs," in Physics of Auroral Arc Formation, Geophysical Monograph Series (Printed by the American Geophysical Union), Vol. 25, 185–191, 1981.
- Wickwar, V.B., C. Lathuillere, W. Kofman, and G. Lejeune, "Elevated Electron Temperatures in the Auroral *E* Layer Measured with the Chatanika Radar," *J. Geophys. Res.*, Vol. 86, No. A6, 4721–4730, 1981.

1980

- Banks, P., "Energy Sources of the High Latitude Upper Atmosphere," in Exploration of the Polar Upper Atmosphere, C. Deehr and J. Holtet, Eds., 113–127, D. Reidel Publishing Co., 1980.
- Cahill, L.J., R.L. Arnoldy, and W. Taylor, "Rocket Observations at the Northern Edge of the Eastward Electrojet," *J. Geophys. Res.*, Vol. 85, No. A7, 3407–3413, 1980.
- Chang, N.J.F., "Precision of Tropospheric/Stratospheric Winds Measured by the Chatanika Radar," *Radio Sci.*, Vol. 15, No. 2, 371–382, 1980.
- Foster, J.C., G.S. Stiles, and J.R. Doupnik, "Radar Observations of Cleft Dynamics," *J. Geophys. Res.*, Vol. 85, No. A7, 3453–3460, 1980.
- Foster, J.C., J.R. Doupnik, and G.S. Stiles, "Ionospheric Density Enhancement During Relativistic Electron Precipitation," *Geophys. Res. Lett.*, Vol. 7, No. 11, 929–932, 1980.
- Hargreaves, J.K., "*D* Region Electron Density Observed by Incoherent-Scatter Radar During Auroral-Absorption Spike Events," *J. Atmos. Terr. Phys.*, Vol. 42, 783, 1980.
- Hunsucker, R.D., "*E* and *F* Region Predictions for Communication Purposes at High Latitudes," in Exploration of the Polar Upper Atmosphere, C. Deehr and J. Holtet, Eds., 481–494, D. Reidel Publishing Co., 1980.
- Kelley, M.C., K.D. Baker, J.C. Ulwick, C.L. Rino, and M.J. Baron, "Simultaneous Rocket Probe, Scintillation and Incoherent Scatter Radar Observations of Irregularities in the Auroral Zone Ionosphere," *Radio Sci.*, Vol. 15, No. 3, 491–505, 1980.

- Kofman, W., and V. Wickwar, "Plasma Line Measurements at Chatanika with High-Speed Correlator and Filter Bank," *J. Geophys. Res.*, Vol. 85, No. A6, 2998–3012, 1980.
- Mehta, N.C., and N. D'Angelo, "Cosmic Noise 'Absorption' by E Region Plasma Waves," *J. Geophys. Res.*, Vol. 85, No. A4, 1779–1782, 1980.
- Moorcroft, D.R., "Comparison of Radio-Auroral Spectral Characteristics at 398 MHz with Incoherent Scatter Measurements of Electric Field," *Can. J. Geophys.*, Vol. 58, 232, 1980.
- Nath, N., I. Steen Mikkelsen, and T. Stockflet Jørgensen, "On the Formation of High Latitude E Layers," *J. Atmos. Terr. Phys.*, Vol. 42, 841–852, 1980.
- Schlegel, K., H. Kohl, and K. Rinnert, "Temperatures and Collision Frequency in the Polar E Region Measured with the Incoherent Scatter Technique," *J. Geophys. Res.*, Vol. 85, No. A2, 710–714, 1980.
- Sojka, J.J., J.C. Foster, W.J. Raitt, R.W. Schunk, and J.R. Douppnik, "High-Latitude Convection: Comparison of a Simple Model with Incoherent Scatter Observations," *J. Geophys. Res.*, Vol. 85, No. A2, 703–709, 1980.
- Stiles, G.S., J.C. Foster, and J.R. Douppnik, "Prolonged Radar Observations of an Auroral Arc," *J. Geophys. Res.*, Vol. 85, No. A3, 1223–1234, 1980.
- Thuillier, G., J. Falin, and F. Barlier, "Magnetic Activity Effects on the Exospheric Temperatures at High Latitudes," *J. Atmos. Terr. Phys.*, Vol. 42, 653–660, 1980.
- Vickrey, J., C. Rino, and T. Potemra, "Chatanika/TRIAD Observations of Unstable Ionization Enhancements in the Auroral F Region," *Geophys. Res. Lett.*, Vol. 7, No. 10, 789–792, 1980.

1979

- Alcaydé, D., "Incoherent Scatter Data Related to Thermospheric Modelling," in (COSPAR) Space Research, M.J. Rycroft, Ed., 211–229, Volume XIX, Pergamon Press Oxford and NY, 1979.
- Banks, P.M., "Joule Heating in the High-Latitude Mesosphere," *J. Geophys. Res.*, Vol. 84, No. A11, 6709–6712, 1979.
- Chang, N.J., "The Potential of the Chatanika Radar to Investigating Possible Solar/Atmosphere Coupling," in Solar-Terrestrial Influences on Weather and Climate, B.M. McCormac and T.A. Seliga, Eds., 329–334, D. Reidel, Dordrecht, Holland, 1979.
- Evans, D.S., and T.E. Moore, "Precipitating Electrons Associated with the Diffuse Aurora: Evidence for Electrons of Atmospheric Origin in the Plasma Sheet," *J. Geophys. Res.*, Vol. 84, No. A11, 6451–6457, 1979.
- Gonzales, C.A., M.C. Kelley, B.G. Fejer, J.F. Vickrey, and R.F. Woodman, "Equatorial Electric Fields During Magnetically Disturbed Conditions, 2. Implications of Simultaneous Auroral and Equatorial Measurements," *J. Geophys. Res.*, Vol. 84, No. A10, 5803–5812, 1979.
- Hays, P.B., J.W. Meriwether, and R.G. Roble, "Nighttime Thermospheric Winds at High Latitudes," *J. Geophys. Res.*, Vol. 84, No. A5, 1905–1913, 1979.
- Jalonen, L., and T. Nygren, "On the Discrepancy Between the Magnetic D-Component and the Overhead Horizontal Current at High-Latitudes," *Planet. Space Sci.*, Vol. 27, 1027–1032, 1979.

- Peterson, V.L., and B.B. Balsley, "Clear Air Doppler Radar Measurements of the Vertical Component of Wind Velocity in the Troposphere and Stratosphere," *Geophys. Res. Lett.*, Vol. 6, No. 12, 1979.
- Pinger, W.H., "Detection of Traveling Ionospheric Disturbances with Auroral Zone Incoherent Scatter Radar," *Radio Sci.*, Vol. 14, No. 1, 75–84, 1979.
- Potemra, T.A., "Current Systems in the Earth's Magnetosphere—A Review of U.S. Progress for the 1975–1978 IUGG Quadrennial Report," *Revs. Geophys. and Space Phys.*, Vol. 17, No. 4, 640–656, 1979.
- Watkins, B.J., and P.G. Richards, "A Theoretical Investigation of the Role of Neutral Winds and Particle Precipitation in the Formation of the Auroral *F* Region Ionosphere," *J. Atmos. Terr. Phys.*, Vol. 41, 179–187, 1979.

1978

- Baker, D.J., W.R. Pendleton, Jr., G.J. Romick, V.B. Wickwar, and M.J. Baron, "An Auroral Enhancement of O₂ λ 1.27- μ m Emission," *Planet. Space Sci.*, Vol. 26, 619–634, 1978.
- Bates, H.F., "Computer Bounds on the *F* Region Zonal Wind During Joule Heating," *J. Atmos. Terr. Phys.*, Vol. 40, 1123–1130, 1978.
- Brekke, A., and C.L. Rino, "High-Resolution Altitude Profiles of the Auroral Zone Energy Dissipation Due to Ionospheric Currents," *J. Geophys. Res.*, Vol. 83, No. A6, 2517–2524, 1978.
- Fontheim, E.G., R.S.G. Ong, R.G. Roble, H.G. Mayr, M.J. Baron, W.H. Hoegy, V.B. Wickwar, R.R. Vondrak, and J.A. Ionson, "Effect of Anomalous Transport Coefficients on the Thermal Structure of the Storm Time Auroral Ionosphere," *J. Geophys. Res.*, Vol. 83, No. A10, 4831–4836, 1978.
- Foster, J.C., G.S. Stiles, and J.R. Doupnik, "Fast *E* Region Density Modulation Associated with Pulsating Aurora," *J. Geomag. Geoelectr.*, Vol. 30, 351–352, 1978.
- Gage, K.S., and B.B. Balsley, "Doppler Radar Probing of the Clear Atmosphere," *Bulletin of the American Meteorological Society*, Vol. 59, No. 9, 1074–1093, 1978.
- Horwitz, J.L., J.R. Doupnik, P.M. Banks, Y. Kamide, and S.-I. Akasofu, "The Latitudinal Distributions of Auroral Zone Electric Fields and Ground Magnetic Perturbations and Their Response to Variations in the Interplanetary Magnetic Field," *J. Geophys. Res.*, Vol. 83, No. A5, 2071–2084, 1978.
- Horwitz, J.L., J.R. Doupnik, and P.M. Banks, "Chatanika Radar Observations of the Latitudinal Distributions of Auroral Zone Electric Fields, Conductivities, and Currents," *J. Geophys. Res.*, Vol. 83, No. A4, 1463–1481, 1978.
- Kamide, Y., and J.L. Horwitz, "Chatanika Radar Observations of Ionospheric and Field-Aligned Currents," *J. Geophys. Res.*, Vol. 83, No. A3, 1063–1070, 1978.
- Monson, S.J., and P.J. Kellogg, "Ground Observations of Waves at 2.96 MHz Generated by an 8- to 40-keV Electron Beam in the Ionosphere," *J. Geophys. Res.*, Vol. 83, No. A1, 121–131, 1978.
- Morgan, B.G., and R.L. Arnoldy, "A Determination of *F* Region Convective Electric Fields from Rocket Measurements of Ionospheric Thermal Ion Spectra," *J. Geophys. Res.*, Vol. 83, No. A3, 1055–1061, 1978.
- Schunk, R.W., and A.F. Nagy, "Electron Temperatures in the *F* Region of the Ionosphere: Theory and Observations," *Revs. Geophys. and Space Phys.*, Vol. 16, No. 3, 355–399, 1978.

- Vondrak, R.R., and R.D. Sears, "Comparison of Incoherent-Scatter Radar and Photometric Measurements of the Energy Distribution of Auroral Electrons," *J. Geophys. Res.*, Vol. 83, No. A4, 1665–1667, 1978.
- Watkins, B.J., "A Numerical Computer Investigation of the Polar *F* Region Ionosphere," *Planet. Space Sci.*, Vol. 26, 559–569, 1978.
- Watkins, B.J., and A.E. Belon, "Incoherent-Scatter Radar Measurements of Electron Density and Ion Velocity During an Isolated Substorm," *J. Atmos. Terr. Phys.*, Vol. 40, 559–564, 1978.
- Wickwar, V.B., "Plasma Lines in the Auroral *E* Layer," *J. Geophys. Res.*, Vol. 83, No. A11, 5186–5190, 1978.

1977

- Baker, K.D., D.J. Baker, J.C. Ulwick, and A.T. Stair, Jr., "Measurements of 1.5- to 5.3- μ m Infrared Enhancements Associated with a Bright Auroral Breakup," *J. Geophys. Res.*, Vol. 82, No. 25, 3518–3528, 1977.
- Balsley, B.B., N. Cianos, D.T. Farley, and M. J. Baron, "Winds Derived from Radar Measurements in the Arctic Troposphere and Stratosphere," *J. Appl. Meteorol.*, Vol. 16, No. 11, 1235–1239, 1977.
- Banks, P.M., "Observations of Joule and Particle Heating in the Auroral Zone," *J. Atmos. Terr. Phys.*, Vol. 39, 179–193, 1977.
- Baron, M.J., "The Chatanika Radar System," in Radar Probing of the Auroral Plasma, [Proceedings of the EISCAT Summer School, Tromsø, Norway, June 5–13, 1975] A. Brekke, Ed., 103–141, Universitetsforlaget, Tromsø-Oslo-Bergen, 1977.
- Bates, H.F., and T.D. Roberts, "A Technique for Using Incoherent Scatter to Estimate *F* Region Zonal Winds During Joule Heating," *J. Atmos. Terr. Phys.*, Vol. 39, 1293–1306, 1977.
- Bates, H.F., and T.D. Roberts, "The Southward Midnight Surge in *F* Layer Wind Observed with the Chatanika Incoherent Scatter Radar," *J. Atmos. Terr. Phys.*, Vol. 39, 87–93, 1977.
- Benson, R.F., P. Bauer, L.H. Brace, H.C. Carlson, J. Hagen, W.B. Hanson, W.R. Hoegy, M.R. Torr, R.H. Wand, and V.B. Wickwar, "Electron and Ion Temperatures—A Comparison of Ground Based Incoherent Scatter and AE-C Satellite Measurements," *J. Geophys. Res.*, Vol. 82, No. 1, 36–42, 1977.
- Brekke, A., R.T. Tsunoda, and M.J. Baron, "On Auroral Electrojet Curvature and the Interpretation of Azimuth-Scan, Radar Doppler Data," *Radio Sci.*, Vol. 12, No. 1, 141–149, 1977.
- de la Beaujardière, O., R. Vondrak, and M.J. Baron, "Radar Observations of Electric Fields and Currents Associated with Auroral Arcs," *J. Geophys. Res.*, Vol. 82, No. 32, 5051–5062, 1977.
- Doupnik, J.R., A. Brekke, and P.M. Banks, "Incoherent Scatter Radar Observations During Three Sudden Commencements and a PC5 Event on August 4, 1972," *J. Geophys. Res.*, Vol. 82, No. 4, 499–514, 1977.
- Ecklund, W.L., B.B. Balsley, and D.A. Carter, "A Preliminary Comparison of *F* Region Plasma Drifts and *E* Region Irregularity Drifts in the Auroral Zone," *J. Geophys. Res.*, Vol. 82, No. 1, 195–197, 1977.

- Heacock, R.R., and R.D. Hunsucker, "Pi 1-2 Magnetic Field Pulsations on Dayside Cleft Field Lines," *Nature*, Vol. 269, No. 5626, 313–314, 1977.
- Hunsucker, R.D., "Estimate of the Relative Importance of Joule Heating and the Lorentz Force in Generating Atmospheric Gravity Waves from the Auroral Electrojet," *J. Geophys. Res.*, Vol. 82, No. 29, 4826–4828, 1977.
- Hunsucker, R.D., "Selected Ionograms from College, Alaska, with Interpretative Comments," Ionosphere Station Information Bulletin No. 4 (INA6-24), World Data Center, Boulder, Colorado, 9–20, 1977.
- Kamide, Y.R., and A. Brekke, "Altitude of the Eastward and Westward Auroral Electrojets," *J. Geophys. Res.*, Vol. 82, No. 19, 2851–2853, 1977.
- Perreault, P.D., M. J. Baron, and H.C. Stenbaek-Nielsen, "Comparison of Chatanika Radar and Optical Measurements of E Region Neutral Winds," *Geophys. Res., Lett.* Vol. 4, No. 12, 573–576, 1977.
- Rino, C.L., A. Brekke, and M.J. Baron, "High-Resolution Auroral Zone E Region Neutral Wind and Current Measurements by Incoherent Scatter Radar," *J. Geophys. Res.*, Vol. 82, No. 16, 2295–2304, 1977.
- Shaw, G.E., and R.D. Hunsucker, "A Study of Possible Correlation Between Fair-Weather Electric Field and Auroral Activity," in Electrical Processes in Atmospheres [Proceedings of the Fifth International Conference on Atmospheric Electricity held at Garmisch-Partenkirchen (Germany), 2–7 September 1974], H. Dolezalek and R. Reiter Eds., 576–581, Dr. Dietrich Steinkopff Verlag, Darmstadt, 1977.
- Siren, J.C., J.R. Doupnik and W.L. Ecklund, "A Comparison of Auroral Currents Measured by the Chatanika Radar with 50-MHz Backscatter Observed from Anchorage," *J. Geophys. Res.*, Vol. 82, No. 28, 3577–3584, 1977.
- Vondrak, R.R., and M.J. Baron, "A Method of Obtaining the Energy Distribution of Auroral Electrons from Incoherent Scatter Radar Measurements," in Radar Probing of the Auroral Plasma, [Proceedings of the EISCAT Summer School, Tromsø, Norway, June 5–13, 1975] A. Brekke, Ed., 315–330, Universitetsforlaget, Tromsø-Oslo-Bergen, 1977.
- Watt, T.M., "Characteristics of the Polar D Region Determined by Radar and Satellite Measurements," in Radar Probing of the Auroral Plasma, [Proceedings of the EISCAT Summer School, Tromsø, Norway, June 5–13, 1975] A. Brekke, Ed., 385–405, Universitetsforlaget, Tromsø-Oslo-Bergen, 1977.
- Wedde, T., J.R. Doupnik, and P.M. Banks, "Chatanika Observations of the Latitudinal Structure of Electric Fields and Particle Precipitation on November 21, 1975," *J. Geophys. Res.*, Vol. 82, No. 19, 2743–2751, 1977.
- Wedde, T., J.R. Doupnik, P.M. Banks, R.J. Park, and J.C. Siren, "Incoherent Scatter Radar Observations During August 4–7, 1972," *Radio Sci.*, Vol. 12, No. 2, 285–306, 1977.
- Yasuhara, F., and S.-I. Akasofu, "Field-Aligned Currents and Ionospheric Electric Fields," *J. Geophys. Res.*, Vol. 82, No. 7, 1279–1284, 1977.

1976

- Balsley, B.B., and D.T. Farley, "Auroral Zone Winds Detected Near the Tropopause with the Chatanika UHF Doppler Radar," *Geophys. Res. Lett.*, Vol. 3, No. 8, 525–528, 1976.

- Brekke, A., "Electric Fields, Joule and Particle Heating in the High Latitude Thermosphere," *J. Atmos. Terr. Phys.*, Vol. 38, 887–895, 1976.
- Comfort, R.H., S.T. Wu, and G.R. Swenson, "An Analysis of Auroral *E* Region Neutral Winds Based on Incoherent Scatter Radar Observations at Chatanika," *Planet. Space Sci.*, Vol. 24, 541–560, 1976.
- Hendrickson, R.A., Winckler, J.R. and Arnoldy, R.L., "Echo III: The study of electric and magnetic fields with conjugate echoes from artificial electron beams injected into the auroral zone ionosphere," *Geophys. Res. Lett.*, 3: 409–412. doi:10.1029/GL003i007p00409, 1976.
- Kamide, Y., F. Yasuhara, and S.-I. Akasofu, "A Model Current System for the Magnetospheric Substorm," *Planet. Space Sci.*, Vol. 24, 215–222, 1976.
- Kamide, Y., S.-I. Akasofu, and A. Brekke, "Ionospheric Currents Obtained from the Chatanika Radar and Ground Magnetic Perturbations at the Auroral Latitude," *Planet. Space Sci.*, Vol. 24, 193–201, 1976.
- Reagan, J.B., and T.M. Watt, "Simultaneous Satellite and Radar Studies of the *D* Region Ionosphere During the Intense Solar Particle Events of August 1972," *J. Geophys. Res.*, Vol. 81, No. 25, 4579–4596, 1976.
- Tsunoda, R.T., and E.J. Fremouw, "Radar Auroral Substorm Signatures 1, Expansive and Recovery Phases," *J. Geophys. Res.*, Vol. 81, No. 34, 6148–6158, 1976.
- Tsunoda, R.T., "Doppler Velocity Maps of the Diffuse Radar Aurora," *J. Geophys. Res.*, Vol. 81, No. 4, 425–435, 1976.
- Tsunoda, R.T., and E.J. Fremouw, "Radar Auroral Substorm Signatures 2, East-West Motions," *J. Geophys. Res.*, Vol. 81, No. 34, 6159–6168, 1976.
- Tsunoda, R.T., and R.I. Presnell, "On a Threshold Electric Field Associated with the 398-MHz Diffuse Radar Aurora," *J. Geophys. Res.*, Vol. 81, No. 1, 88–96, 1976.
- Tsunoda, R.T., R.I. Presnell, and T.A. Potemra, "The Spatial Relationship Between the Evening Radar Aurora and Field-Aligned Currents," *J. Geophys. Res.*, Vol. 18, No. 22, 3791–3802, 1976.
- Tsunoda, R.T., R.I. Presnell, Y. Kamide, and S.-I. Akasofu, "Relationship of Radar Aurora, Visual Aurora and Auroral Electrojets in the Evening Sector," *J. Geophys. Res.*, Vol. 81, No. 34, 6005–6015, 1976.
- Vondrak, R.R., and M.J. Baron, "Radar Measurements of the Latitudinal Variation of Auroral Ionization," *Radio Sci.*, Vol. 11, No. 11, 939–946, 1976.
- Wilson, C.R., R.D. Hunsucker, and G.J. Romick, "An Auroral Infrasonic Substorm Investigation Using Chatanika Radar and Other Geophysical Sensors," *Planet. Space Sci.*, Vol. 24, 1155–1175, 1976.

1975

- Banks, P.M., "Ionosphere-Magnetosphere Coupling II: Electric Fields," *Revs. Geophys.*, Vol. 13, No. 3, 874–878, 1975.
- Banks, P.M., and J.R. Doupnik, "A Review of Auroral Zone Electrodynamics Deduced from Incoherent-Scatter Radar Observations," *J. Atmos. Terr. Phys.*, Vol. 37, 951–972, 1975.

- Brekke, A., "The Effective Recombination Coefficient Measured in the Auroral *E* Region During a Sudden Commencement Electron Precipitation Event," *J. Atmos. Terr. Phys.*, Vol. 37, 825–833, 1975.
- Carpenter, L.A., and V.W.J.H. Kirchhoff, "Comparison of High-Latitude and Mid-Latitude Ionospheric Electric Fields," *J. Geophys. Res.*, Vol. 80, No. 13, 1810–1814, 1975.
- Ecklund, W.L., B.B. Balsley, and R.A. Greenwald, "Crossed-Beam Measurements of the Diffuse Radar Aurora," *J. Geophys. Res.*, Vol. 80, No. 13, 1805–1809, 1975.
- Fontheim, E.G., "Beam-Plasma Interactions as a Heat Source in the Magnetosphere," *Geophys. Res., Lett.*, Vol. 2, No. 4, 150, 1975.
- Hunsucker, R.D., "Chatanika Radar Investigation of High Latitude *E* Region Ionization Structure and Dynamics," *Radio Sci.*, Vol. 10, No. 3, 277–288, 1975.
- Hunsucker, R.D., G.J. Romick, W.L. Ecklund, R.A. Greenwald, B.B. Balsley, and R.T. Tsunoda, "Structure and Dynamics of Ionization and Auroral Luminosity During the Auroral Events of March 16, 1972, Near Chatanika, Alaska," *Radio Sci.*, Vol. 10, No. 8/9, 813–821, 1975.
- Kamide, Y., and A. Brekke, "Auroral Electrojet Current Density Deduced from the Chatanika Radar and from the Alaska Meridian Chain of Magnetic Observatories," *J. Geophys. Res.*, Vol. 80, No. 4, 587–594, 1975.
- Kelley, M.C., and F.S. Mozer, "Simultaneous Measurements of the Horizontal Components of the Earth's Electric Field in the Atmosphere and in the Ionosphere," *J. Geophys. Res.*, Vol. 80, No. 22, 3275–3276, 1975.
- Schunk, R.W., and P.M. Banks, "Auroral N₂ Vibrational Excitation and the Electron Density Trough," *Geophys. Res. Lett.*, Vol. 2, No. 6, 239, 1975.
- Swift, D.W., "The Effect of Electric Fields and Ion-Neutral Collisions on Thomson Scatter Spectra," *J. Geophys. Res.*, Vol. 80, No. 31, 4380–4382, 1975.
- Tsunoda, R.T., "Electric Field Measurements Above a Radar Scattering Volume Producing 'Diffuse' Auroral Echoes," *J. Geophys. Res.*, Vol. 80, No. 31, 4297–4306, 1975.
- Wickwar, V.B., "Chatanika Radar Measurements," in *Atmospheres of Earth and the Planets*, 111–124, B.M. McCormac, Ed., D. Reidel Publishing Company, Dordrecht-Holland, 1975.
- Wickwar, V.B., M.J. Baron, and R.D. Sears, "Auroral Energy Input from Energetic Electrons and Joule Heating at Chatanika," *J. Geophys. Res.*, Vol. 80, No. 31, 4364–4367, 1975.

1974

- Banks, P.M., C.L. Rino, and V.B. Wickwar, "Incoherent-Scatter Radar Observations of Westward Electric Fields and Plasma Densities in the Auroral Ionosphere, I," *J. Geophys. Res.*, Vol. 9, No. 1, 187–198, 1974.
- Baron, M.J., "Electron Densities with Aurorae and Other Auroral *E* Region Characteristics," *Radio Sci.*, Vol. 9, No. 2, 341–348, 1974.
- Bates, H.F., "Atmospheric Expansion from Joule Heating," *Planet. Space Sci.*, Vol. 22, 925–937, 1974.

- Bates, H.F., "Thermospheric Changes Shortly After the Onset of Daytime Joule Heating," *Planet. Space Sci.*, Vol. 22, 1625–1636, 1974.
- Bates, H.F., and R.D. Hunsucker, "Quiet and Disturbed Electron Density Profiles in the Auroral Zone Ionosphere," *Radio Sci.*, Vol. 9, No. 4, 455–467, 1974.
- Brekke, A., J.R. Doupnik, and P.M. Banks, "Incoherent Scatter Measurements of *E* Region Conductivities and Currents in the Auroral Zone," *J. Geophys. Res.*, Vol. 79, No. 25, 3773–3790, 1974.
- Brekke, A., J.R. Doupnik, and P.M. Banks, "Observations of Neutral Winds in the Auroral *E* Region During the Magnetospheric Storm of August 3–9, 1972," *J. Geophys. Res.*, Vol. 79, No. 16, 2448–2456, 1974.
- Cogger, L.L., V.B. Wickwar, and H.C. Carlson, "Combined Airglow and Incoherent Scatter Observations as a Technique for Studying Neutral Atmospheric Variations," *Radio Sci.*, Vol. 9, No. 2, 205–210, 1974.
- Hunsucker, R.D., "Simultaneous Riometer and Incoherent-Scatter Observations of the Auroral *D* Region," *Radio Sci.*, Vol. 9, No. 2, 335–340, 1974.
- Nagy, A.F., R.J. Cicerone, P.B. Hays, K.D. McWatters, J.W. Meriwether, A.E. Belon, and C.L. Rino, "Simultaneous Measurement of Ion and Neutral Motions by Radar and Optical Techniques," *Radio Sci.*, Vol. 9, No. 2, 315–321, 1974.
- Rino, C.L., M.J. Baron, G.H. Burch, and O. de la Beaujardiére, "A Multipulse Correlator Design for Incoherent Scatter Radar," *Radio Sci.*, Vol. 9, No. 12, 1117–1127, 1974.
- Rino, C.L., V.B. Wickwar, P.M. Banks, S.-I. Akasofu, and E. Reiger, "Incoherent-Scatter Radar Observations of Westward Electric Fields, 2," *J. Geophys. Res.*, Vol. 79, No. 31, 4669–4678, 1974.
- Watkins, B.J., and P.M. Banks, "A Preliminary Study of High-Latitude Thermospheric Temperatures from Incoherent Scatter Radar Observations," *J. Geophys. Res.*, Vol. 79, No. 34, 5307–5310, 1974.
- Watt, T.M., L.L. Newkirk, and E.G. Shelley, "Joint Radar-Satellite Determination of the Effective Recombination Coefficient in the Auroral *E* Region," *J. Geophys. Res.*, Vol. 79, No. 31, 4725–4731, 1974.
- Wickwar, V.B., "Conjugate Photoelectrons at $L = 5.6$ and the 6300 Å Postsunset Enhancement," *Planet. Space Sci.*, Vol. 22, 1297–1307, 1974.

1973

- Banks, P.M., J.R. Doupnik, and S.-I. Akasofu, "Electric Field Observations by Incoherent-Scatter Radar in the Auroral Zone," *J. Geophys. Res.*, Vol. 78, No. 28, 6607–6622, 1973.
- Baron, M.J., and R.D. Hunsucker, "Incoherent Scatter Radar Observations of the Auroral Zone Ionosphere During the Total Solar Eclipse of July 10, 1972," *J. Geophys. Res.*, Vol. 78, No. 31, 7451–7460, 1973.
- Bates, H.F., "Atmospheric Expansion through Joule Heating by Horizontal Electric Fields," *Planet. Space Sci.*, Vol. 21, 2073–2088, 1973.
- Bates, H.F., A.E. Belon, and R.D. Hunsucker, "Aurora and the Poleward Edge of the Main Ionospheric Trough," *J. Geophys. Res.*, Vol. 78, No. 4, 648–658, 1973.

- Bates, H.F., A.E. Belon, B. Watkins, R.D. Hunsucker, and M.J. Baron, "Correspondence of Main Trough Ion Temperatures with Horizontal Drift Speed," *J. Geophys. Res.*, Vol. 78, No. 10, 1723–1726, 1973.
- Brekke, A., J.R. Doupnik, and P.M. Banks, "A Preliminary Study of the Neutral Wind in the Auroral *E* Region," *J. Geophys. Res.*, Vol. 78, No. 34, 8235–8250, 1973.
- Horwitz, J., and P.M. Banks, "Ion Momentum and Energy Transfer Rates for Charge Exchange Collisions," *Planet. Space Sci.*, Vol. 21, 1975–1981, 1973.
- McClure, J.P., W.B. Hanson, A.F. Nagy, R.J. Cicerone, L.H. Brace, M. Baron, P. Bauer, H.C. Carlson, J.V. Evans, N.G. Taylor, and R.F. Woodman, "Comparison of T_e and T_i from Ogo 6 and from Various Incoherent Scatter Radars," *J. Geophys. Res.*, Vol. 78, No. 1, 197–205, 1973.
- Watt, T.M., "Incoherent-Scatter Observations of the Ionosphere over Chatanika, Alaska," *J. Geophys. Res.*, Vol. 78, No. 16, 2992–3006, 1973.

1972

- Doupnik, J.R., P.M. Banks, M.J. Baron, C.L. Rino, and J. Petriceks, "Direct Measurements of Plasma Drift Velocities at High Magnetic Latitudes," *J. Geophys. Res.*, Vol. 77, No. 22, 4268–4271, 1972.
- Hunsucker, R.D., H.F. Bates, and A.E. Belon, "Observations of Simultaneous Auroral *D* and *E* Layers with Incoherent-Scatter Radar," *Nature Physical Sci.*, Vol. 239, No. 94, 102–104, 1972.
- Leadabrand, R.L., M.J. Baron, J. Petriceks, and H.F. Bates, "Chatanika, Alaska, Auroral-Zone Incoherent-Scatter Facility," *Radio Sci.*, Vol. 7, No. 7, 747–756, 1972.
- Rino, C.L., "Radar Measurement of Ionosphere Motion in the Presence of Current-Induced Spectral Asymmetries," *Radio Sci.*, Vol. 7, No. 11, 1049–1060, 1972.