Publications

CHRISTOPHER W. FAIRALL

Fairall, C.W., D.D. Swinehart, and J.A. Cowen, 1970: Anisotropic susceptibility of an antiferromagnet in applied field. *J. Appl. Phys.* **41**(6), 2509-2512.

Fairall, C.W. and J.A. Cowen, 1970: Phase transitions in the canted antiferromagnet. *Phys. Rev. B* **2**(11), 4636-4643.

Cowen, J.A., C.W. Fairall, E. Grabowski, and P. Soltis, 1971: Antiferromagnet

resonance and the H-T phase diagram of KMnCl32H2O. *Phys. Lett.* **34A**(2), 102-103.

Fairall, C.W., J.A. Cowen, and E. Grabowski, 1971: Susceptibility of ErCl3. Phys. Lett. **35A**(6), 405-406.

Fairall, C.W. and W. Reese, 1972: Thermodynamic properties of KH2AsO4.

*Phys. Rev. B* **6**(1), 193-199.

Fairall, C.W. and W. Reese, 1973: Electrical conductivity in KH2AsO4 and KD2AsO4. *Phys. Rev. B* **8**(7), 3474-3478.

Fairall, C.W. and W. Reese, 1974: Thermodynamic properties of RbH2AsO4.

*Phys. Rev. B* **10**(3), 882-885.

Fairall, C.W. and W. Reese 1975: Hydrogen bond configuration parameters for

ferroelectrics isomorphic to KH2PO4. *Phys. Rev. B* **11**(5), 2066-2068.

Schacher, G.E. and C.W. Fairall, 1976: Use of resistance wires for atmospheric turbulence measurements in the marine environment. *Rev. Sci. Instrum.* **48**, 0037-0041.

Fairall, C.W. and G.E. Schacher, 1977: Frequency response of hot wires used for`atmospheric turbulence measurements in the marine environment. *Rev. Sci. Instrum.* **48**, 12-17.

Schacher, G.E. and C.W. Fairall, 1978: Producing small scale temperature fluctuations in an airstream. *Rev. Sci. Instrum.* **49**, 13-15.

Davidson, K.L., T.M. Houlihan, C.W. Fairall, and G.E. Schacher, 1978: Observation of temperature structure function parameter CT2, over the ocean. *Bound.-Layer Meteor.* **15**, 507-523.

Fairall, C.W., K.L. Davidson, and G.E. Schacher, 1979: Humidity effects and sea salt contaminating of atmospheric temperature sensors. *J. Appl. Meteor.* **18**, 1237-1239.

Schacher, G.E. and C.W. Fairall, 1979: Frequency response of cold wires used for atmospheric turbulence measurements in the marine environment. *Rev. Sci. Instrum.* **50**, 77-80.

Fairall, C.W., G.E. Schacher, and K.L. Davidson, 1980: Measurements of humidity structure function parameters, Cq2 and CTq, over the ocean. *Bound.-Layer Meteor.* **19**, 81-92.

Fairall, C.W., R. Markson, G.E. Schacher, and K.L. Davidson, 1980: An aircraft study of turbulence dissipation and temperature structure function in the unstable marine atmospheric boundary layer. *Bound.-Layer Meteor.* **19**, 453-469.

Schacher, G.E., K.L. Davidson, and C.W. Fairall, 1981: Observations of turbulent kinetic energy dissipation rates over the ocean. *Bound.-Layer Meteor.* **20**, 250-260.

Davidson, K.L., G.E. Schacher, C.W. Fairall, and A. Goroch, 1981: Verification of the bulk method for calculating overwater optical turbulence. *Appl. Opt.* **20**, 2919-2924.

Schacher, G.E., K.L. Davidson, C.W. Fairall, and D.E. Spiel, 1981: Calculation of optical extinction from aerosol data. *Appl. Opt.* **20**, 3951-3957.

Markson, R., J. Sedlacek, and C.W. Fairall, 1981: Turbulent transport of electric charge in the marine atmospheric boundary layer. *J. Geophys. Res.* **86**, 12115-12121.

Davidson, K.L., G.E. Schacher, J. Jarrell, and C.W. Fairall, 1981: Observational results pertaining to scatterometer interpretations. *Oceanography from Space*, Ed. J.F.R. Gower, Plenum Press, New York, 597-607.

Schacher, G.E., C.W. Fairall, and K.L. Davidson, 1982: Atmospheric boundary layer convective mixing velocity in the California region. *Atmos. Environ.* **16**, 1183-1192.

Goroch, A.K., C.W. Fairall, and K.L. Davidson, 1982: Modeling wind speed dependence of marine aerosol distributions by a gamma function. *J. Appl. Meteor.* **21**, 660-671.

Fairall, C.W., K.L. Davidson, and G.E. Schacher, 1982: Meteorological models for optical properties in the marine atmospheric boundary layer. *Optical Engr.* **21**, 847-857.

Fairall, C.W., K.L. Davidson, and G.E. Schacher, 1983: An analysis of the surface production of sea-salt aerosols. *Tellus* **35B**, 31-39.

Fairall, C.W., 1983: Total optical depth and mixed layer visibility in the marine regime. *Optical Engr.* **22**, 150-156.

Monahan, E.C., C.W. Fairall, K.L. Davidson, and P. Jones Boyle, 1983: Observed interrelationships amongst 10-m elevation winds, oceanic whitecaps and marine aerosols. *Quart. J. Roy. Meteor. Soc.* **109**, 379-392.

Fairall, C.W. and S.E. Larsen, 1984: Dry deposition, surface production, and dynamics of aerosols in the marine boundary layer. *Atmos. Environ.* **18**, 69-77.

Davidson, K.L., C.W. Fairall, P. Jones Boyle, and G.E. Schacher, 1984: Verification of an atmospheric mixed-layer model for a coastal regime. *J. Climate Appl. Meteor.* **23**, 617-636.

Fairall, C.W., 1984: Interpretation of eddy-correlation measurements of particulate deposition and aerosol flux. *Atmos. Environ.* **18**, 1329-1337.

Fairall, C.W., K.L. Davidson, and G.E. Schacher, 1984: A mixed layer model of the dynamics of the marine aerosol. *Tellus* **36B**, 203-211.

Randall, D.A., J.A. Coakley, C.W. Fairall, R.A. Kropfli, and D.H. Lenschow, 1984: Outlook for research on subtropical marine stratocumulus. *Bull. Amer. Meteor. Soc.* **65**, 1290-1301.

Fairall, C.W., 1984: Wind shear enhancement of entrainment and refractive index structure parameter at the top of a turbulent mixed layer. *J. Atmos. Sci.* **41**, 3422-3484.

Fairall, C.W. and S.E. Larsen, 1986: Inertial dissipation methods and turbulent fluxes at the air ocean interface. *Bound.-Layer Meteor.* **34**, 287-301.

Larsen, S.E., J. Hojstrup, and C.W. Fairall, 1986: Mixed and dynamic response of hot wires and cold wires and measurements of turbulence statistics. *J. Atmos. Ocean. Tech.* **3**, 236-247.

Fairall, C.W. and R. Markson, 1987: Mesoscale variations in surface stress heat fluxes and drag coefficients in the marginal ice zone during MIZEX. *J. Geophys. Res.* **92**, 6921-6932.

Fairall, C.W., 1987: A top-down and bottom-up diffusion model of CT2 and CQ2 in the entraining convective boundary layer. *J. Atmos. Sci.* **44**, 1009-1017.

Duan, B., C.W. Fairall, and D.W. Thomson, 1988: Eddy correlation measurements of the dry deposition of particles in wintertime. *J. Climate Appl. Meteor.* **27**, 642-652.

Hicks, B.B., T.P. Meyers, C.W. Fairall, V.A. Mohnen, and D.A. Dolshe, 1989: Ratio of dry-to-wet deposition of sulfur as derived from preliminary field data. *Global Biogeochemical Cycles* **3**, 155-162.

Fairall, C.W., J.B. Edson, S.E. Larsen, and P.G. Mestayer, 1990: Inertial-dissipation air-sea flux measurements: A prototype system using real-time spectral computations. *J. Atmos. Ocean. Technol.* **7**, 425-453.

Fairall, C.W., J.E. Hare, and J.B. Snider, 1990: An eight-month climatology of marine stratocumulus cloud fraction, albedo, and integrated liquid water. *J. Climate* **3**, 847-864.

Albrecht, B.A., C. W. Fairall, D.W. Thomson, A.B. White, J.B. Snider, and

W.H. Schubert, 1990: Surface-based remote sensing of the observed and adiabatic liquid water content of stratocumulus clouds. *Geophys. Res. Lett.* **17**, 89-92.

Edson, J.B., C.W. Fairall, P.G. Mestayer, and S.E. Larsen, 1991: A study of the inertial-dissipation method of obtaining air-sea fluxes. *J. Geophys. Res.* **96**, 10,689-10,711.

Mestayer, P.G., S.E. Larsen, C.W. Fairall, and J.B. Edson, 1991: Turbulence sensor dynamic calibration using real-time spectral computations. *J. Atmos. Ocean. Technol.* **7**, 841-851.

Fairall, C.W., A.B. White, and D.W. Thomson, 1991: A stochastic model of

gravity-wave-induced clear-air turbulence. *J. Atmos. Sci.* **48**, 1771-1790.

Fairall, C.W., 1991: The humidity/temperature sensitivity of clear-air radars in the convective boundary layer. *J. Appl. Meteor.* **30**, 1064-1074.

White, A.B., C.W. Fairall, and D.W. Thomson, 1991: Radar observations of humidity variability in and above the marine atmospheric boundary layer. *J. Atmos. Ocean. Technol.* **8**, 639-658.

Young, G.S., D.R. Ledvina, and C.W. Fairall, 1992: Influence of precipitating convection on the surface energy budget observed during a TOGA pilot cruise in the tropical western Pacific Ocean. *J. Geophys. Res.* **97**, 9595-9603.

Minnis, P., P.W. Heck, D.F. Young, C.W. Fairall, and J.B. Snider, 1992: Stratocumulus cloud properties derived from simultaneous satellite and island-based instrumentation during FIRE. *J. Appl. Meteor.* **31**(4), 317-339.

Chertock, B., C.W. Fairall, and A.B. White, 1993: Surface-based measurements and satellite retrievals of broken cloud properties in the equatorial Pacific. *J. Geophys. Res.*, **98**, 18,489-18,500.

Ledvina, D.V., G.S. Young, and C.W. Fairall, 1993: The effect of averaging on bulk estimates of heat and momentum fluxes for the tropical western Pacific Ocean. *J. Geophys. Res.*, **98**, 20,211-20,217.

Larsen, S.E., J.B. Edson, C.W. Fairall, and P.G. Mestayer, 1993: Measurement of temperature spectra by a sonic anemometer. *J. Atmos. Ocean. Technol.*, **10**, 345-354.

Oost, W.A., C.W. Fairall, J.B. Edson, S.D. Smith, R.J. Anderson, J.A. Wills,

K.B. Katsaros, and J. deCosmo, 1993: Flow distribution calculations and their application in HEXMAX. *J. Atmos. Ocean. Technol.*, **11**, 366-386.

Wolfe, D.E., R.J. Zamora, D. Ruffieux, R.G. Strauch, C.W. Fairall, and R.L. Weber, 1993: The 1992 Arctic LEADS Experiment. *Arctic Research Journal*, **7**, 24-28.

Edson, J.B., and C.W. Fairall, 1994: Spray droplet modeling. I: Lagrangian model simulation of the turbulent transport of evaporating droplets. *J. Geophys. Res.*, **99**, 25295-25311.

Young, G.S., S.M. Perugini, and C.W. Fairall, 1994: Convective wakes in the equatorial western Pacific during TOGA. *Mon. Wea. Rev.*, **123**, 110-123.

Fairall, C.W., J. Kepert, and G.J. Holland, 1995: The effect of sea spray on surface energy transports over the ocean. *The Global Atmospheric Ocean System*, **2**, 121-142.

Ruffieux, D. P.O.G. Persson, C.W. Fairall, and D.E. Wolfe, 1995: Ice pack and lead surface energy budgets during LeadEx 92. *J. Geophys. Res.*, **100**, 4593-4612.

Frisch, A.S., C.W. Fairall, and J.B. Snider, 1995: Measurement of stratus cloud and drizzle parameters in ASTEX with a K -band Doppler radar and a microwave radiometer. *J. Atmos. Sci.*, **52**, 2788-2799.

White, A.B., C.W. Fairall, and J.B. Snider, 1995: Surface-based remote sensing of marine boundary layer cloud properties. *J. Atmos. Sci.*, **52**, 2827-2838.

Frisch, A.S., D.H. Lenschow, C.W. Fairall, W.H. Schubert, and J.S. Gibson, 1995: Doppler radar measurements of turbulence in marine stratiform cloud during ASTEX. *J. Atmos. Sci.*, **52**, 2800-2808.

Gosnell, R., P.J. Webster, and C.W. Fairall, 1995: The sensible heat flux due to rain in TOGA COARE. *J. Geophys. Res.*, **100**, 1843718442.

Palmer, A.J., R.A. Kropfli, and C.W. Fairall, 1995: Signatures of deterministic chaos in radar sea clutter and ocean surface winds. *Chaos*, **5**, 613-616.

Fairall, C.W., E.F. Bradley, D.P. Rogers, J.B. Edson, and G.S. Young, 1996: Bulk parameterization of air-sea fluxes for TOGA COARE. *J. Geophys. Res.*, **101**, 3747-3767.

Fairall, E.F. Bradley, J.S. Godfrey, J.B. Edson, G.S. Young, and G.A. Wick, 1996: Cool skin and warm layer effects on the sea surface temperature. *J. Geophys. Res.*, **101**, 1295-1308.

Clayson, C.A., J.A. Curry, and C.W. Fairall, 1996: Evaluation of turbulent fluxes at the ocean surface using surface renewal theory. *J. Geophys. Res.*, **101**, 28503-28513.

White, A.B., C.W. Fairall, A.S. Frisch, B.W. Orr, and J.B. Snider, 1996: Recent radar measurements of turbulence and microphysical properties in clouds. *Atmos. Res.,* **40**, 177-121.

Smith, S. D., C. W. Fairall, G. L. Geernaert, and L. Hasse, 1996: Air-sea fluxes: 25 years of progress.  *Bound.-Layer Meteorol*., **78**, 247-290.

Fairall, C.W., A.B. White, J.B. Edson, and J.E. Hare, 1997: Integrated shipboard measurements of the marine boundary layer. *J. Atmos. Oceanic Tech.,* **14**, 338-359.

Pinto, J.O., J.A. Curry, and C.W. Fairall, 1997: Radiative and microphysical properties of low-level Arctic clouds from ground-based measurements. *J. Geophys. Res.*, **102**, 6941-6952.

Grachev, A.A., and C.W. Fairall, 1997: Dependence of the Monin-Obukhov stability parameter on the bulk Richardson number for unstable conditions over the ocean. *J. Appl. Meteorol.*, **36**, 406-414.

Grachev, A.A., C.W. Fairall, and S. S. Zilitinkevich, 1997: Surface-layer scaling for the convection-induced stress regime. *Bound.-Layer Meteorol.*, **83**, 423-439.

Edson, J.B., A. A. Hinton, K. E. Prada, J.E. Hare, and C.W. Fairall, 1997: Direct covariance flux estimates from moving platforms at sea. *J. Atmos. Oceanic Tech.*, **15**, 547-562.

Persson, P. O. G., D. Ruffieux, and C. W. Fairall, 1997: Recalculations of pack ice and lead surface energy budgets during the Arctic Leads Experiment (LEADEX) 1992. *J. Geophys. Res.*, **102**, 25085-25089.

Post, M. J., C. W. Fairall, J. B. Snider, Y. Han, A. B. White, W. L. Ecklund, K. M. Weickmann, P. K. Quinn, D. I. Cooper, S. M. Sekelsky, R. E. McIntosh, P. Minnett, and R. O. Knuteson, 1997: The Combined Sensor Program: An air-sea science mission in the central and western Pacific Ocean. *Bull. Am. Met. Soc.*, **78**, 2797-2815.

Walsh, E. J., D. E. Hagan, D. P. Rogers, R. A. Weller, C. W. Fairall, C. A. Friehe, S. P. Burns, D. Khelif, D. C. Vandemark, R. N. Swift, and J. F. Scott, 1998: Observations of sea surface mean square slope under light wind during the TOGA Coupled Ocean-Atmosphere Response Experiment. *J. Geophys. Res.*, **103**, 12603-12613.

Walsh, E. J., R. Pinkel, D. E. Hagan, R. A. Weller, C. W. Fairall, D. P. Rogers, S. P. Burns, and M. Baumgartner, 1998: : Coupling of internal waves on the main thermocline o the diurnal surface layer and sea surface temperature during the TOGA Coupled Ocean-Atmosphere Response Experiment. *J. Geophys. Res.*, **103** ,12613-12628.

Westwater, E. R., Y. Han, V. G. Irisov, V. Y. Leuskiy, Y. G. Trokhimovski, and C. W. Fairall, 1997: Sea-air and boundary layer temperatures measured by a scanning 60 Ghz radiometer: Recent results. *Radio Science*, **33**, 291-302.

Grachev, A. A., C. W. Fairall, and S. E. Larsen, 1998: On the determination of the neutral drag coefficient in the convective boundary layer. *Bound.-Layer Meteorol*., **86**, 257-278.

Edson, J. B. and C. W. Fairall, 1998: Similarity relationships in the marine atmospheric surface layer for terms in the TKE and scalar variance budgets. *J. Atmos. Sci.*, **55**, 2311-2338.

Fairall, C. W., O.P.G. Persson, R. E. Payne, and E. F. Bradley, 1998: A new look at calibration and use of Eppley precision infrared radiometers. *J. Atmos. Oceanic Tech.*, **15**, 1230-1243.

Palmer, A. J., C. W. Fairall, and R. A. Kropfli, 1998: Deterministic chaos at the ocean surface: Applications and interpretations. *Nonlinear Proc. Geophys.*, **5**, 13-25.

Frisch, A. S., G. Feingold, C. W. Fairall, T. Uttal, and J. B. Snider, 1998: On cloud radar and microwave radiometer measurements of stratus cloud liquid water profiles. *J. Geophys. Res.*, **103**, 23195-23197.

Grachev, A. A., and C. W. Fairall, 1998: Determination of the Monin-Obukhov theory parameterization z/L from the data of standard meteorological observations over the ocean. *Izv. Atmos. Oceanic Phys*., **34**, 447-455.

Perovich, D. K., and 22 coauthors, 1999: Year on ice gives climate insights. *EOS, Transactions of AGU*, **80**, 481,485-286.

Grachev, A. A., C. W. Fairall, and E. F. Bradley, 1999: Convective profile constants revisited. *Bound.-Layer Meteorol*., **94**, 495-515.

Burns, Sean P. and 13 coauthors, 1999: Comparisons of aircraft, ship, and buoy meteorological measurements from TOGA COARE. *J. Geophys. Res.*, **104**, 30853-30884.

Curry, J. A., and 21 coauthors, 2000: FIRE arctic clouds experiment. *Bull. Am. Met. Soc.,* **81**, 5-29.

Palmer, A. J., C. W. Fairall, and R. A. Kropfli, 2000: Complexity in the atmosphere. *IEEE Trans. Geosci. Remote Sens.*, **38**, 2056-2063.

Fairall, C. W., J. E. Hare, J. B. Edson, and W. McGillis, 2000: Parameterization and measurement of air-sea gas transfer. *Bound.-Layer Meteorol.*, **96**, 63-105.

Burns, Sean P. and 14 coauthors, 2000: Comparisons of aircraft, ship, and buoy radiation and SST measurements from TOGA COARE. *J. Geophys. Res.*, **105**, 15627-15652.

Zilitinkevich, S. S., A. A. Grachev, and C. W. Fairall, 2001: Scaling reasoning and field data on the sea-surface roughness lengths for scalars. *J. Atmos. Sci.*, **58**, 320-325.

Grachev, A., A., and C. W. Fairall, 2001: Upward momentum transfer in the marine boundary layer. *J. Phys. Ocean.*, **31**, 1698-1711.

McGillis, W.R., J.B. Edson, J. D. Ware, J.E. Hare, C. W. Fairall, J. H. Dacey, and R. Wanninkhof, 2001: Carbon dioxide flux techniques performed during GasEx98. *J. Marine Chem*., **75**, 267-280.

.McGillis, W. R., J. B. Edson, J. D. Ware, J. E. Hare, and C. W. Fairall, 2001: Direct covariance CO2 fluxes across the air-sea interface. *J. Geophy. Res.*, **106**, 16,729- 16,746.

Intrieri, J. M. C. W. Fairall, M. D. Shupe, P. O. G. Persson, E. L. Andreas, P. S. Guest, and R. E. Moritz, 2002: Annual cycle of cloud forcing at SHEBA. *J. Geophys. Res.*, **107**, NO. C10, 8039, doi:10.1029/2000JC000439, 2002.

Andreas, E. L., P. S. Guest, P. O. G. Persson, C. W. Fairall, T. W. Horst, and R. E. Moritz, 2002: Near-surface water vapor over polar sea ice is always near ice-saturation.  *J. Geophys. Res.*, **107**, C8 8-1 to 8-15.

Persson, P. O. G., C. W. Fairall, E. L. Andreas, P. Guest, and D. Perovich, 2002: Measurements near the Atmospheric Surface Flux Group tower at SHEBA: Near surface conditions and surface energy budget. *J. Geophys. Res*., **107**, NO. C10, 8045, doi:10.1029/2000JC000705, 2002.

Cronin, M. F., N. Bond, C. W. Fairall, J. E. Hare, M. J. McPhaden, and R. A. Weller, 2002: Enhanced oceanic and atmospheric monitoring for the Eastern Pacific Investigation of Climate Processes (EPIC) experiment. *EOS, Transactions of AGU*, **83**, 205-211.

Webster, P. J., C. W. Fairall, P. W. Hacker, R. Lukas, E. F. Bradley, and S. Godfrey, 2002: The Joint Air-Sea Monsoon Interaction Experiment (JASMINE) Pilot study. *Bull. Am. Met. Soc.*, **83**, 1603-1630.

Fairall, C. W., E. F. Bradley, J. E. Hare, A. A. Grachev, and J. B. Edson, 2003: Bulk parameterization of air-sea fluxes: Updates and verification for the COARE algorithm. *J. Clim.*, **16**, 571-591.

Brunke, M. A., C W. Fairall, and X. Zeng, 2003: Which bulk aerodynamic algorithms are least problematic in computing ocean surface turbulent fluxes? *J. Clim*., **16**, 619-635.

Petersen, Walter A., R. Cifelli, D. J. Bocippio, S. A. Rutledge, and C. W. Fairall, 2003: convection and easterly wave structure observed in the Eastern Pacific warm-pool during EPIC-2001. *J. Atmos. Sci.*, **60**, 1754-1773.

Grachev, A. A., C. W. Fairall, J. E. Hare, and J. B. Edson, 2003: Wind stress vector over ocean waves. *J. Phys. Oceanography*, **33**, 2408-2429.

Andreas, E. L., C. W. Fairall, P. O. G. Persson, and P. S. Guest, 2003: Probability distributions for the inner scale and refractive index structure parameter and their implications for flux averaging.  *J. Appl. Meteorol.*, **42**, 1316-1329.

Bretherton, C. S., T. Uttal, C. W. Fairall, S. E. Yuter, R. A. Weller, D. Baumgardner, K. Comstock, and R. Wood, 2004: The EPIC 2001 Stratocumulus Study. *Bull. Am. Met. Soc*., **85**, 967-977.

Hare, J. E., C. W. Fairall, W. R. McGillis, B. Ward, and R. Wanninkhof, 2004: Evaluation of the NOAA/COARE air-sea gas transfer parameterization using GasEx data*. J. Geophys. Res*., **109** Art. No. C08S11, doi:10.1029/2003JC001831.

Curry, J. A., and 18 coauthors, 2004: SEAFLUX. *Bull. Am. Met. Soc.,* **85**, 409-424.

McGillis, W. R., and 12 coauthors, 2004: Air-sea CO2 exchange in the equatorial Pacific. *J. Geophys. Res.*, **109** (C08S02)**,** doi:10.1029/2003/C002256.

Zeng, X., M. A. Brunke, M. Zhou, C. W. Fairall, N. A. Bond, and D. H. Lenschow, 2004: Marine atmospheric boundary layer height over the Eastern Pacific: Data analysis and model evaluation. *J. Clim*., **17**, 4159-4170.

Kollias, Pavlos, C. W. Fairall, P. Zuidema, J. Tomlinson, and G. A. Wick, 2004: Observations of marine stratocumulus in SE Pacific during the PACS 2003 Cruise. *Geophys. Res. Lett*., **31**, Art. No. L22110.

Huebert, B., B. Blomquist, J. E. Hare, C. W. Fairall, T. Bates, and J. Johnson, 2004: Measurements of the sea-air DMS flux and transfer velocity using eddy correlation. *J. Geophys. Res. Lett.*, **31**: Art. No. L23113.

Grachev, A. A., C. W. Fairall, P. O. G. Persson, E. L. Andreas, P. S. Guest, 2005: Stable boundary-layer scaling regimes: The SHEBA data. *Bound.-Layer Meteorol*., 1**16**, 201-235.

Pyatt, Hollis, B. A. Albrecht, C. W Fairall, Nick Bond, and P. Minnis, 2005: Evolution of marine atmospheric boundary layer structure across the Cold Tongue ITCZ Complex. *J. Clim.*, **18,** 737-753.

Persson, P. O. G., J. E. Hare, C. W. Fairall, W. D. Otto, 2005: Air-sea interaction processes in warm and cold sectors of extratropical cyclonic storms observed during FASTEX. Q. *J. Roy. Met. Soc.*, **131**, 877-912.

Wick, Gary A., J. Carter Ohlmann, Christopher W. Fairall, and Andrew T. Jessup, 2005: Improved oceanic cool-skin corrections using a refined solar penetration model.  *J. Phys. Oceanogr.*, **35**, 1986-1996.

Zuidema, Paquita, C. W. Fairall, E. Westwater, and D. Hazen, 2005: Ship-based liquid water path estimates in marine stratus. *J. Geophys. Res*., **110(20)**, Art. No. D20206.

Andreas, E. L., K. J. Claffery, R. E. Jordan, C. W. Fairall, P. S. Guest, P. O. G. Persson, and A. A. Grachev, 2006: Measurements of the von Karman constant in the atmospheric surface layer. *J. Fluid. Mech.*, **559**, 117 - 149.

Zhou, Mingyyu, Xubin Zeng, Michael Brunke, Zhanhai Zhang, and C. W. Fairall, 2006: An analysis of statistical characteristics of stratus and stratocumulus over the Eastern Pacific. *Geophys. Res. Lett.,* **33(2)**, Art. No. L02807.

Zilitinkevich, S. S., J. C. R. Hunt, I.N. Esau, A.A. Grachev, D.P. Lalas, E.Akylas, M. Tombrou, C.W. Fairall, H.J.S. Fernando, A.A. Baklanov, S.M. Joffre, 2006: The influence of large convective eddies on the surface-layer turbulence. *Q. J. Roy. Met. Soc.*, **132**, 1423-1456

Higgins, W., et al., 2006: The NAME field campaign and modeling strategy*. Bul. Am. Met. Soc*., **87**, 79-94.

Cronin, M. F., N. Bond, C. W. Fairall, and R. A. Weller, 2006: Surface cloud forcing in the Eastern Tropical Pacific. *J. Clim.*, **19**, 392-409.

Cronin, M., C. W. Fairall, and M. J. McPhaden, 2006: An assessment of buoy-derived and numerical weather prediction surface heat fluxes in the tropical Pacific.  *J. Geophys. Res.*, **111**, C06038, doi:10.1029/2005JC003324.

Blomquist, B. W., C. W. Fairall, B. Huebert, and D. J. Kleiber, 2006: DMS sea-air transfer velocity: Direct measurements by eddy covariance and parameterization based on the NOAA/COARE Gas Transfer Model. *Geophys. Res. Lett.*, **33,** L07601; doi:10.1029/2006GL025735.

Zuidema, Paquita, B. Mapes, J. Lin, and C. W. Fairall, 2006: The interaction of clouds and dry air in the Eastern Tropical Pacific. *J. Clim.*, **19**, 4531-4544.

Fairall, C. W., Ludovic Bariteau, A.A. Grachev, R. J. Hill, D.E. Wolfe, W. Brewer, S. Tucker, J. E. Hare, and W. Angevine 2006: Coastal effects on turbulent bulk transfer coefficients and ozone deposition velocity in ICARTT. *J. Geophys. Res.*, **111**, D23S20, doi:1029/2006JD007597.

Angevine, W. M., J. E. Hare, C. W. Fairall, D. E. Wolfe, R. J. Hill, W. A. Brewer, and A. B. White, 2006: Structure and formation of the highly stable marine boundary layer over the Gulf of Maine *J. Geophys. Res*., **111**, D23S22, doi:10.1029/2006JD007465.

Fairall, C. W., J. E. Hare, D. Helmig, and L. Ganzveld, 2007: Water-side turbulence enhancement of ozone deposition to the ocean. *Atm. Chem. Phys.*, **7**, 443-451 [ http://www.atmos-chem-phys.net/7/443/2007/]

Wolfe, D. E., C.W. Fairall, D.C. Welsh, M. Ratterree, A.W. Brewer, J.M. Intrieri, C.J. Senff, B.J. McCarty, S. Tucker, D.C. Law, A.B. White, and D.E. White, 2007: Shipboard multi-sensor merged wind profilers from NEAQS 2004: Radar wind profiler, high-resolution Doppler lidar, GPS rawinsonde, *J. Geophys. Res.*, **112**, D10S15, doi:10.1029/2006JD007344.

Zuidema, P., C. W. Fairall, L.M. Hartten, J. E. Hare, and D.E. Wolfe, 2007: On air–sea interaction at the mouth of the Gulf of California. *J. Clim.*, **20**, 1657–1669.

Grachev, A. A., E. L Andreas, C. W. Fairall, P. S. Guest, and P. O. G. Persson, 2007: SHEBA flux-profile relationships in the stable atmospheric surface layer, *Boundary-layer Meteorol.*, **124**, 5044-5060.

Cohen, Lana, D. Helmig, W. Neff, A. A. Grachev, C. W. Fairall, 2007: Boundary-layer dynamics and its influence on atmospheric chemistry at Summit, Greenland. *Atmos. Environ*, **41**, 329-341.

Kara, Birol, Alan J. Wallcraft, E. Joseph Metzger, Harley E. Hurlburt, and C. W. Fairall , 2007: Wind stress drag coefficient over the global ocean. *J. Clim.*, **20**, 5856-5864.

Rauber, R. M., and 41 coauthors, 2007: Rain in (shallow) Cumulus over the Ocean – The RICO campaign. *Bull. Am. Met Soc*., **88**, 1912.

Grachev, A.A., E.L Andreas, C. W. Fairall, P.S. Guest, and P.O.G. Persson, 2007: On the turbulent Prandtl number in the stable atmospheric boundary layer. *Bound.-Layer Meteorol*., **125**, 329-341.

Grachev, A.A., E.L Andreas, C. W. Fairall, P.S. Guest, and P.O.G. Persson, 2008: Turbulent measurements in the stable atmospheric boundary layer during SHEBA: ten years after. *Acta Geophysica*, **56**, 142-166.

Fairall, C. W., J. E. Hare, T. Uttal, D. Hazen, Meghan Cronin, Nicholas A. Bond, and Dana Veron, 2008: A seven-cruise sample of clouds, radiation, and surface forcing in the Equatorial Eastern Pacific. *J. Clim*., **21**, 655-673.

Wood, R., K.K. Comstock, C.S. Bretherton, C. Cornish, J. Tomlinson, D.R. Collins, and C.W. Fairall, 2008: Open cellular structure in marine stratocumulus sheets. *J. Geophys. Res.*, **113,** Article Number: D12207, doi:10.1029/2007JD009371.

Serpetzoglou, T., B. A. Albrecht, P. Kollias, and C.W. Fairall, 2008: Boundary layer, cloud, and drizzle variability in the southeast Pacific stratocumulus regime. *J. Clim.*, **21**, 6191-6214.

Weller, R.A., E.F. Bradley, J. Edson, C.W. Fairall, I. Brooks, M.J. Yelland, and R.W. Pascal, 2008: Sensors for physical fluxes at the sea surface: Energy, heat, water, and salt. *Ocean Sci.*, **5**, 327-373, 2008.

De Szoeke, S.P., C.W. Fairall, and S. Pezoa, 2009: Ship observations of the tropical Pacific Ocean along the coast of South America. *J. Clim.*, **22**, 458-464.

Zuidema, P., D. Painemal, C.W. Fairall, and S. de Szoeke, 2009: Stratocumulus cloud-top height estimates and their climatic implications. *J. Clim.,* **22**, 4652-4666.

Ghate, V., B.A. Albrecht, C.W. Fairall, and R.A. Weller, 2009: Cloud fraction climatology and its indicators in South-East Pacific Ocean. *J. Clim.*, **22**, 5527-5540.

Ganzeveld, L., D. Helmig, C. Fairall, J.E. Hare, and A. Pozzer, 2009: Atmosphere-ocean Ozone exchange - A global modeling study of biogeochemical, atmospheric and water-side turbulence dependencies. *Global Biogeochem. Cycles*, **23**, GB4021, doi:10.1029/2008GB003301.

Fairall, C. W., M. Banner, W. Peirson, R. P. Morison, and W. Asher, 2009: Investigation of the physical scaling of sea spray spume droplet production. *J. Geophys., Res*., **114**, C10001, doi:10.1029/2008JC004918.

Andreas, E. L, P.O.G Persson, R.E. Jordan, T.W. Horst, P.S. Guest, A.A. Grachev, and C.W. Fairall, 2010: Parameterizing turbulent exchange over sea ice in winter.  *J. Hydrometeor.*, **11**, 87-104.

Blomquist, B. W., B. J. Huebert, C. W. Fairall, and I. C. Faloona, 2010: Determining the sea-air flux of dimethylsulfide by eddy correlation using mass spectrometry. *Atmos. Meas. Tech*., **3**, 1-20.

Fairall, C. & Co-Authors, 2010: Observations to Quantify Air-Sea Fluxes and Their Role in Climate Variability and Predictability in *Proceedings of OceanObs’09: Sustained Ocean Observations and Information for Society (Vol. 2),* Venice, Italy, 21-25 September 2009, Hall, J., Harrison D.E. & Stammer, D., Eds., ESA Publication WPP-306.

Gulev, S. K., and Coauthors, 2010: Surface energy, CO2 fluxes and sea ice. *Proceedings of OceanObs’09: Sustained Ocean Observations and Information for Society (Vol. 1)*, Venice, Italy, 21-25 September 2009, J. Hall, D. E. Harrison, and D. Stammer, Eds., ESA Publ. WPP-306.

Bariteau, Ludovic, J. Hueber , K. Lang, D. Helmig, C. W. Fairall, and J. E. Hare, 2010: Ozone deposition velocity by ship-based eddy correlation flux measurements.  *Atmos. Meas. Tech.*, **3**, 441-455, [DOI:10.5194/amt-3-441-2010](http://www.atmos-meas-tech.net/3/441/2010/amt-3-441-2010.html).

Andreas, E. L, T. W. Horst, A. A. Grachev, P. O. G. Persson, C. W. Fairall, P. S. Guest, and R. E. Jordan, 2010: Parameterizing turbulent exchange over summer sea ice and the Marginal Ice Zone.  *Quart. J. Roy. Met. Soc.*, **136**, 927-943.

DeSzoeke, Simon P., C. W. Fairall, D.E. Wolfe, L. Bariteau, and P. Zuidema 2010: Surface flux observations in the southeastern tropical Pacific and attribution of SST errors in coupled ocean-atmosphere models. *J. Clim.*, **23**, 4152-4174.

Andreas, E.L., K.F. Jones, and C.W. Fairall, 2010: The production velocity of sea spray droplets. *J. Geophys. Res.*, **115**, C12065, doi:10.1029/2010JC006458.

Wood, R., and 32 coauthors, 2011: The VAMOS Ocean-Cloud-Atmosphere-Land Study Regional Experiment (VOCALS-REx): goals, platforms, and field operations. *Atmos. Phys. Chem.*, **11**, 627-654, doi:10.5194/acp-11-627-2011.

De Leeuw, G., C.W. Fairall, E.L Andreas, M.D. Anguelova, E.R. Lewis, C. O’Dowd, M. Schulz, and S.E. Schwartz, 2011: Primary production of sea spray aerosol. *Rev. Geophys.*, **49**, RG2001, doi:10.1029/2010RG000349.

Rowe, M.D., J.A. Perlinger, and C.W. Fairall, 2010: Parameterization of internal boundary layer growth in offshore flow using an internal boundary layer transport exchange model. *Bound.-Layer Meteorol*., **140**, 87-103, DOI: 10.1007/s10546-011-9598-0.

Rowe, M.D., C.W. Fairall, and J.A. Perlinger, 2011: Chemical sensor resolution requirements for near-surface measurements of turbulent fluxes*. Atmos. Chem. Phys.*, **11**, 5263–5275, doi:10.5194/acp-11-5263-2011.

Bianco, L., J.-W. Bao, C. W. Fairall, and S. A. Michelson, 2011: Impact of sea spray on the surface boundary layer.  *Bound.-Layer Meteorol*., **140**, DOI 10.1007/s10546-011-9617-1.

Lauvset, S. K., W. R. McGillis, L. Bariteau, C. W. Fairall, T. Johannessen, A. Olsen, and C. J. Zappa, 2011: Direct measurements of CO2 flux in the Greenland Sea. *Geophys. Res. Lett.*, **38**, L12603, doi:10.1029/2011GL047722.

Grachev, A. A., Ludovic J. Bariteau, J. Hueber, K. Lang, D. Helmig, C. W. Fairall, and J. E. Hare, 2011: Near-surface Ozone fluxes from ship-based eddy-correlation measurements during TexAQS 2006. *J. Geophys. Res.,* **116**, D13110, doi:10.1029/2010JD015502.

Yang, M., B.W. Blomquist, C.W. Fairall, S.D. Archer, and B.J. Huebert, 2011: Effects of sea surface temperature and gas solubility on air-sea exchange of Dimethylsulfide (DMS).  *J. Geophys. Res*., **116**, C00F05, doi:10.1029/2010JC006526.

Bocquet, F., D. Helmig, B. A. Van Dam, and C. W. Fairall, 2011: Evaluation of the flux gradient technique for measurement of ozone surface fluxes over snowpack at Summit, Greenland.  *Atmos. Meas. Tech.*, **4**, 2305-2321, doi:10.5194/amt-4-2305-2011.

Edson, J.B., C.W. Fairall, Ludovic Bariteau, C.J. Zappa, A. Cifuentes-Lorenzen, W.M. McGillis, S. Pezoa, J.E. Hare, and D. Helmig, 2011: Eddy-covariance measurement of CO2 gas transfer velocity during the 2008 Southern Ocean Gas Exchange Experiment: Wind speed dependency. *J. Geophys. Res.*, **116**, doi:10.1029/2011JC007022.

Fairall, C.W., Mingxi Yang, Ludovic Bariteau, J.B. Edson, D. Helmig, W. McGillis, S. Pezoa, J.E. Hare, B. Huebert, and B. Blomquist, 2011: Implementation of the COARE flux algorithm with CO2, DMS, and O3. *J. Geophys. Res.*, **116**, C00F09, doi:10.1029/2010JC006884.

Moran, K., S. Pezoa, C. Fairall, T. Ayers, A. Brewer, C. Williams, and S. de Szoeke, 2012: A motion stabilized W-band radar for shipboard cloud observations. *Bound.-Layer Meteor*., **141**, 3-24, DOI 10.1007/s10546-011-9674-5.

Helmig, D., E.K. Lang, L. Bariteau, L. Ganzeveld, C.W. Fairall, J.E. Hare, P. Boylan, and J. Hueber, 2012: Atmosphere-ocean ozone fluxes during the TexAQS 2006, STRATUS 2006, GOMECC 2007, GasEX 2008, and AMMA 2008 cruises. *J. Geophys. Res.,* **117**, doi:10.1029/2011JD015955.

Bao, J.-W., C. W. Fairall, S. A. Michelson, L. Bianco, 2011: Parameterizations of sea-spray impact on the air-sea momentum and heat fluxes. *Mon. Wea. Rev*., **139**, 3781–3797, doi: <http://dx.doi.org/10.1175/MWR-D-11-00007.1> .

Zuidema, P., ZX. Li, R.J. Hill, Ludovic Bariteau, Bob Rilling, C.W. Fairall, W. A. Brewer, B. A. Albrecht, and J.E. Hare, 2012: On trade wind cumulus cold pools. *J. Atmos. Sci*., **69**, 258-280, DOI: 10.1175/JAS-D-11-0143.1.

Grachev, A.A., Edgar L. Andreas, C. W. Fairall, Peter S. Guest, P. Ola G. Persson, 2012**:** Outlier problem in evaluating similarity functions in the stable atmospheric boundary layer. *Bound.-Layer Meteorol.*, **144**, 137–155, DOI 10.1007/s10546-012-9714-9.

Angevine, Wayne M., Lee Eddington, Kevin Durkee, C.W. Fairall, Laura Bianco, and Jerome Brioude, 2012: Meteorological model evaluation for CalNex 2012*. Mon. Wea. Rev*., **140**, 3885–3906. doi: <http://dx.doi.org/10.1175/MWR-D-12-00042.1>

.

De Szoeke, Simon P., Sandra Yuter, David Mechem, C. W. Fairall, Casey Burleyson, Paquita Zuidema, 2012: Observations of stratocumulus clouds and their effect on the eastern Pacific surface heat budget along 20°S. *J. Clim.*, **25**, 8542–8567.

doi: <http://dx.doi.org/10.1175/JCLI-D-11-00618.1>

Blomquist, B.W., B.J.Huebert, S.T.Wilson, C.W.Fairall, 2012: Direct measurement of the oceanic carbon monoxide flux by eddy correlation.  *Atmos. Meas. Tech..*, **5**, 3069–3075. www.atmos-meas-tech.net/5/3069/2012/doi:10.5194/amt-5-3069-2012

Helmig, D., Patrick Boylan, Bryan Johnson, Sam Oltmans, Chris Fairall, Ralf Staebler, Andrew Weinheimer, John Orlando, David J. Knapp, Denise D. Montzka, Frank Flocke, Udo Frieß, Holger Sihler, andPaul B.Shepson, 2012: Ozone dynamics and snow-atmosphere exchanges during Ozone depletion events at Barrow, AK. *J. Geophys. Res*., **117***, D20303,* doi:[10.1029/2012JD017531](http://dx.doi.org/10.1029/2012JD017531)*.*

McBride, P.J., K.S. Schmidt,P. Pilewskie, A. Walther, A.K. Heidinger, D.E. Wolfe, C.W. Fairall, S. Lance, 2012: A CalNex climatology of cloud optical properties retrieved from a ship-based spectrometer and comparisons with satellite and aircraft retrieved cloud properties*. J. Geophys. Res*., **117**, D00V23, doi:[*10.1029/2012JD017624*](http://dx.doi.org/10.1029/2012JD017624).

Bourassa, M., S. Gille, C. Bitz, D. Carlson, I. Cerovecki, M. Cronin, W. Drennan, C. Fairall, R. Hoffman, G. Magnusdottir, R. Pinker, I. Renfrew, M. Serreze, K. Speer, L. Talley, and G. Wick, 2013: High-Latitude ocean and sea ice surface fluxes: Requirements and challenges for climate research. *Bull. Am. Met. Soc.*, **94**, 403-423.

Rodriguez-Alvarez, N., D. M. Akos, V. U. Zavorotny, J. A. Smith, A. Camps, and C. W. Fairall, 2013: Airborne GNSS-R wind retrievals using Delay-Doppler maps. *IEEE Trans. Geosci. Remote Sens*., **51**, 626-41,  DOI: 10.1109/TGRS.2012.2196437.

Grachev, A.A., Edgar L. Andreas, C. W. Fairall, Peter S. Guest, P. Ola G. Persson, 2013**:** The critical Richardson number and limits of applicability of local similarity theory in the stable boundary layer.  *Bound.-Layer Meteorol.*, **145**, DOI 10.1007/s10546-012-9771-0.

Nicholas Meskhidze, and 33 coauthors (including C.W. Fairall), 2013: Production mechanisms, number concentration, size distribution, chemical composition, and optical properties of sea spray aerosols. *Atmos. Sci. Let.*, DOI:10.1002/asl2.441 (<http://onlinelibrary.wiley.com/doi/10.1002/asl2.441/pdf> ).

Edson, J.B., J. V. S. Raju, R.A. Welle**r**, S. Bigorre**,** A. Plueddemann, C.W. Fairall, S. Miller, L. Mahrt, Dean Vickers, andHans Hersbach, 2013: On the Exchange of momentum over the open ocean. *J. Phys. Oceanogr.*, **43**, 1589–1610. doi: <http://dx.doi.org/10.1175/JPO-D-12-0173.1>

Vecherin, Sergey N., Vladimir E. Ostashev, C. W. Fairall, D. Keith Wilson, and Ludovic Bariteau, 2013: Sonic Anemometer as a small acoustic tomography array. *Boundary-Layer Meteorol*., **149**, 165–178, DOI 10.1007/s10546-013-9843.

Ghate, Virendra P., Bruce A. Albrecht, Mark A. Miller, Alan Brewer, and Christopher W. Fairall, 2014: Turbulence and radiation in stratocumulus topped marine boundary layer: A case study from VOCALS-Rex. *J. Appl. Met. Clim*., **53**, 117–135. doi: <http://dx.doi.org/10.1175/JAMC-D-12-0225.1>.

Yang, M., P. Nightingale, Rachael Beale, Peter S. Liss, Byron Blomquist, and C.W. Fairall, 2013: Atmospheric deposition of Methanol over the Atlantic Ocean. *Proc. Nat. Academ. Sci*. *USA,* **110,** DOI: 10.1073/pnas.1317840110, 20034-20039.

Boylan, Patrick, Detlev Helmig, Ralf Staebler, Andrew Turnipseed, C.W. Fairall, and William Neff, 2014: Boundary layer dynamics during the Ocean-Atmosphere-Sea-Ice-Snow (OASIS) 2009 experiment at Barrow, AK*. J. Geophys. Res.,* **119**, Art. 51076, 2261-2278, doi:10.1002/2013JD020299.

Mechoso, Carlos R., Robert Wood, Robert Weller, Christopher S Bretherton, Anthony D Clarke, Hugh Coe, C.W. Fairall, J Tom Farrar, Graham Feingold, Rene Garreaud, Carmen Grados, James C McWilliams, Simon P de Szoeke, Sandra E Yuter, and Paquita Zuidema, 2014: Ocean-cloud-atmosphere-land interactions in the Southeastern Pacific: The VOCALS program. *Bull. Am. Meteorol. Soc*., **95**, 357–375. doi: <http://dx.doi.org/10.1175/BAMS-D-11-00246.1>.

Fairall, C.W., S. Pezoa, K. Moran, and D.Wolfe, 2014: An observation of sea spray microphysics by airborne Doppler radar. *Geophys. Res. Lett.,* **41***,* doi: 10.1002/2014GL060062.

Moum, J.A., Simon P. de Szoeke, William D. Smyth, James B. Edson, H. Langley DeWitt, Aurélie J. Moulin, Elizabeth J. Thompson, Christopher J. Zappa, Steven A. Rutledge, Richard H. Johnson and Christopher W. Fairall, 2014: Air-sea interactions from westerly wind bursts during the November 2011 MJO in the Indian Ocean. *Bull. Am. Meteor. Soc*., doi:10.1175/BAMS-D-12-00225.

Coburn, S., I. Ortega, R. Thalman, B. Blomquist, C. W. Fairall, and R. Volkamer, 2014: Measurements of diurnal variations and Eddy Covariance (EC) fluxes of glyoxal in the tropical marine boundary layer: description of the Fast LED-CE-DOAS instrument. *Atmos. Meas. Tech*., **7**, 3579–3595, [www.atmos-meas-tech.net/7/3579/2014/](http://www.atmos-meas-tech.net/7/3579/2014/), doi:10.5194/amt-7-3579-2014.

Blomquist, B. W., L. Bariteau, J. W. Edson, C. W. Fairall, J. E. Hare, W. R. McGillis, B. J. Huebert, S. D. Miller, and E. S. Saltzman, 2014: Advances in ship-based air-sea CO2 flux measurement by eddy covariance*. Bound.-Layer Meteorol.,* **152**, 245–276, DOI 10.1007/s10546-014-9926-2.

De Szoeke, Simon P., James B. Edson, June R. Marion, Christopher W. Fairall, and Ludovic Bariteau, 2015: The MJO and Air-Sea Interaction in TOGA COARE and DYNAMO. *J. Clim.*, **28**, 597–622. doi: <http://dx.doi.org/10.1175/JCLI-D-14-00477.1>

Ghate, Virendra P., Mark A. Miller, Bruce A. Albrecht, and C. W. Fairall, 2015: Thermodynamic and radiative structure of stratocumulus topped boundary layers. *J. Atmos. Sci*., **72**, 430-451, doi: <http://dx.doi.org/10.1175/JAS-D-13-0313.1>.

Grachev, Andrey A. , Edgar L Andreas, C. W. Fairall, Peter S. Guest, and P. Ola G. Persson, 2015: Similarity theory based on the Dougherty-Ozmidov length scale. *Quart. J. Roy. Met. So*c., **141**, doi: <http://dx.doi.org/10.1002/qj.2488> .

Chen, S., M. Flatau, T. Jensen, T. Shinoda, J. Schmidt, P. May, J. Cummings, M. Liu, P. Ciesielski, C. Fairall, R. Lien, D. Baranowski, N. Chi, S. deSzoeke, and J. Edson, 2015: A study of CINDY/DYNAMO MJO suppressed phase. *J. Atmos. Sci.*, **72**, 3755-3779, doi:10.1175/JAS-D-13-0348.1.

Grachev, Andrey A., Laura S. Leo, Silvana Di Sabatino, Harindra J. S. Fernando, Eric R. Pardyjak, and C.W. Fairall**,** 2015: Structure of turbulence in katabatic flows below and above the wind-speed maximum. *Bound.-Layer Meteorol.*, **159**, 469-494,DOI 10.1007/s10546-015-0034-8.

Peng, Ge, Lei Shi, Steve Stegall, and C.W. Fairall: 2016: An evaluation of HIRS near-surface air temperature product in the Arctic with SHEBA data.  *J. Atmos. Oceanic Tech*., **33**, 453-460, DOI: <http://dx.doi.org/10.1175/JTECH-D-15-0217.1>.

Ralph, F. M., K. A. Prather, D. Cayan, J.R. Spackman, P. DeMott, M. Dettinger, C. Fairall, R. Leung, D. Rosenfeld, S. Rutledge, D. Waliser, A. B. White, J. Cordeira, A. Martin, J. Helly, and J. Intrieri, 2016: CalWater field studies designed to quantify the roles of atmospheric rivers and aerosols in modulating U.S. West Coast precipitation in a changing climate. *Bull. Am. Meteor. Soc.*, **97**, 1209-1228, DOI: <http://dx.doi.org/10.1175/BAMS-D-14-00043.1>.

Jung, Thomas, and 25 co-authors, 2016: Advancing polar prediction capabilities on daily to seasonal time scales. *Bull. Am. Meteor. Soc.*, **97**, 1631-1647, DOI: <http://dx.doi.org/10.1175/BAMS-D-14-00246.1>.

Thomson, Jim, and 27 coauthors, 2016: Emerging trends in the sea state of the Beaufort and Chukchi seas. *Ocean Modeling*, **105**, 1-12, <http://dx.doi.org/10.1016/j.ocemod.2016.02.009>.

Collins, C.O. III, B. Blomquist, B. Lund, W.E. Rogers, J. Thomson, M. Smith, M. Doble, P. Wadhams, A. Kohout, O. Perrson, C. Fairall, D. Wang, and H.C. Graber, 2017: Doppler correction for 1-D wave frequency spectra measured on moving platforms. *J. Atmos. Oceanic Tech.*, **34**, 429-436, DOI: 10.1175/JTECH-D-16-0138.1.

Ralph, F. M., S. F. Iacobellis, P. J. Neiman, J. M. Cordeira, J. R. Spackman, D. E. Waliser, G. A. Wick, A.B. White, and C. Fairall, 2017: Dropsonde observations of water vapor transport within North Pacific atmospheric rivers. *J. Hydromet*, **18**, DOI: 10.1175/JHM-D-17-0036.1.

Brumer, Sophia E., Christopher J. Zappa, Ian Brooks, Hitoshi Tamura, Scott M. Brown, Byron Blomquist, Christopher W. Fairall, James B. Edson, and Alejandro Cifuentes-Lorenzen, 2017: Whitecap coverage dependence on wind and wave statistics as observed during SO GasEx and HiWinGS. *J. Phys. Oce.*, **47**, 2211-2235, DOI: 10.1175/JPO-D-17-0005.

Neiman, Paul J., N. Gaggini, C. W. Fairall, J. Aikins, J. Ryan Spackman, L. Ruby Leung,J. Fan, J. Harding, N. R. Nalli, A.B. White, 2017: An analysis of coordinated observations from NOAA’s Ronald Brown ship and G-IV aircraft in a landfalling atmospheric river over the North Pacific during CalWater-2015. *Mon. Wea. Rev*., **145**, DOI: 10.1175/MWR-D-17-0055.1.

Grachev, Andrey A., P. Ola G. Persson, Taneil Uttal, Elena A. Konopleva-Akish, Christopher J. Cox, Sara M. Crepinsek, Christopher W. Fairall, Robert S. Stone, Glen Lesins, Alexander P. Makshtas, and Irina A. Repina, 2017: Seasonal and latitudinal variations of surface fluxes at two Arctic terrestrial sites. *Clim. Dynam.*, **51**, 1793–1818. https://doi.org/10.1007/s00382-017-3983-4.

Blomquist, B., C.Fairall, B.Huebert, S.Brumer, M.Yang, L.Bariteau, C.Zappa, I.Brooks, J.Prytherch, J.Hare, 2017: Wind speed and sea state dependencies of air-sea gas transfer: results from the High Wind speed Gas exchange Study (HiWinGS).  *J. Geophys., Res.,* **122**, https://doi.org/10.1002/2017JC013181.

Brumer, S. E., C. J. Zappa, B. Blomquist, C. Fairall, A. Cifuentes-Lorenzen, J. Edson, I. Brooks, and B. Huebert, 2017. Wave-related Reynolds number parameterizations of CO 2 and DMS transfer velocities.  *Geophys. Res. Lett*., **44,** https://doi.org/10.1002/

2017GL074979.

Fairall, C., S. Y. Matrosov, C. R. Williams, E. J. Walsh, 2018: Estimation of rain rate from PSD airborne Doppler W-band radar in CALWATER2. *J. Atmos. Oceanic Tech*., **35**, 593-608. DOI: 10.1175/JTECH-D-17-0025.1.

Grachev A. A., Leo L.S., Fernando H.J.S., Fairall C.W., Blomquist B.W., Hocut C.M., 2018: Air-Sea/Land interaction in the coastal zone during CASPER-East. *Bound.-Layer Meteoro.*, **167**, 181–210. <https://doi.org/10.1007/s10546-017-0326-2>

Bariteau, Ludovic; C.W. Fairall, B. Blomquist, nd Sergio Pezoa, 2018: CAPRICORN 2016 Field campaign: surface meteorological data and turbulent fluxes collected from the RV Investigator by the National Oceanographic and Atmospheric Administration (NOAA) in the Indian and South Pacific Oceans from 2016-03-14 to 2016-04-15 (NCEI Accession 0170257). Version 1.1. NOAA National Centers for Environmental Information. Dataset. doi:10.7289/V5Q81BBC.

Dole, R. M., and 61 co-authors, 2018: Advancing science and services during the 2015-16 El Niño: The NOAA El Niño Rapid Response field campaign. *Bull. Amer. Met. Soc*., **99**, 975-1002, doi: 10.1175/BAMS-D-16-0219.1 T

Thomson, J., and 32 coauthors, 2018: Overview of the Arctic Sea State and Boundary Layer Physics program. *J. Geophys. Res.*, **123**, <https://doi.org/10.1002/2018JC013766>.

Guest, Peter, P. Ola G. Persson, Shouping Wang, Mary Jordan, Yi Jin, Byron Blomquist, Christopher Fairall and David Price, 2018: Low-Level baroclinic jets over the new Arctic Ocean.  *J. Geophys. Res*., **123**, 4074–4091. https://doi.org/10.1002/2018JC013778.

Persson, P.O.G, B. Blomquist, P. Guest, S. Stammerjohn, C. Fairall, L. Rainville, B. Lund, S. Ackley, and J. Thomson 2018: Shipboard observations of the meteorology and near-surface environment during autumn freeze-up in the Beaufort/Chukchi Seas. *J. Geophys. Res*., **123**, 4930–4969. https://doi.org/10.1029/2018JC013786.

Norris, Joel R. F. Martin Ralph, Byron Blomquist, Forest Cannon, Reuben Demirdjian, Christopher W. Fairall, Paul J. Neiman, J. Ryan Spackman, Simone Tanelli, and Duane E. Waliser, 2018: An airborne and surface-based study of the complete water vapor budget and associated dynamical processes in an atmospheric river over the Northeast Pacific.  *Mon. Wea. Rev.*, submitted.

Grachev, Andrey A., Christopher W. Fairall, Byron W. Blomquist, Harindra J. S. Fernando, Laura S. Leo, Sebastián F. Otárola-Bustos, James M. Wilczak, and Katherine L. McCaffre**y,** 2018**:**  On the surface energy balance closure at different temporal scales. *Agricultural and Forest Meteorology*, submitted.

Bharti,Vidhi, Byron W. Blomquist, C.W. Fairall, Yi Huang, Alain Protat , Peter P. Sullivan, Steven T. Siems, and Michael J. Manton, 2018: Air-sea heat and momentum fluxes in the Southern Ocean.  *J. Geophys. Res*., submitted.

Thompson, Elizabeth J., James Moum, C.W. Fairall, and Steven A. Rutledge, 2018: Wind limits on stable rain layers and diurnal warm layers observed throughout the MJO. *J. Geophys. Res*., submitted.

Shinoda, T., Luis Zamudio, Yanjuan Guo, E. Joseph Metzger, C.W. Fairall, 2018: Ocean variability and air-sea fluxes produced by Atmospheric Rivers.  *Scientific Reports*, submitted.

Bharti,Vidhi, Eric Schulz, Byron W. Blomquist, C.W. Fairall, Yi Huang, Alain Protat, Steven T. Siems, and Michael J. Manton, 2018: Assessing surface heat flux products with *in situ* observations over the Australian sector of the Southern Ocean**.**  *J. Geophys. Res*., submitted.

Shutler, J. D., R. Wanninkhov, P.D. Nightingale, D.K. Woolf, D.C. E. Bakker, A. Watson, I. Ashton, T. Holding, B. Chapron, Y. Quilfen, C.W. Fairall, N. Masakatsu, and C.J. Donlon, 2018: Satellite Earth observation will address critical science priorities for quantifying global ocean carbon.  *Frontiers in Ecology*, submitted.

IX. Books or Parts of Books

1. Fairall, C.W., K.L. Davidson, T. Houlihan, and G.E. Schacher, 1977: "Variations of turbulence parameters in marine fog." In *Symposium on Turbulence*, Proceedings, Fifth Biennial Symposium, Eds. G.K. Patterson and J.L. Zakin, Science Press, Ephrata, PA.

2. Fairall, C.W., and K.L. Davidson, 1986: "Dynamics and modeling of aerosols in the marine atmospheric boundary layer." In *Oceanic Whitecaps*, Eds. E.C. Monahan and G. Mac Niocalli, D. Reidel Publishing Company, Holland, 195-208.

3. Fairall, C.W., 1987: "Similarity theories and microturbulence in the atmospheric mixed layer." In *Dynamics of the Oceanic Mixed Layer*, Proceedings, Fourth Hawaiian Winter Workshop, Eds. P. Muller and D. Henderson, Hawaii Inst. of Geophysics Special Publications, Honolulu, HI, 265-291.

4. Fairall, C.W., J.B. Edson, and M.A. Miller, 1990: "Heat fluxes, whitecaps, and sea spray." In *Surface Waves and Fluxes: Current Theory and Remote Sensing*, Eds. G. Geernaert and W. Plant, Reidel Publishing Company, Holland, 173-208.

5. Fairall, C. W., and A. B. White, 1996: “A ship-based system for direct surface flux and remote boundary-layer measurements over the ocean”. In *The Air-Sea Interface: Radio and Acoustic Sensing, Turbulence and Wave Dynamics*, Proc. Of the Symposium on the Air-sea Interface, Marseilles, France, 24-30 June, 1993. Univ. Of Toronto Press, Toronto, CA, 543-548.

6. Fairall, C. W., J. Kepert, and G. J. Holland, 1996: “A parameterization of the effect of sea spray on surface energy transports over the ocean”. In *The Air-Sea Interface: Radio and Acoustic Sensing, Turbulence and Wave Dynamics*, Proc. Of the Symposium on the Air-sea Interface, Marseilles, France, 24-30 June, 1993. Univ. Of Toronto Press, Toronto, CA, 523-528.

7. Kepert, J., and C. W. Fairall, 1999: “Modeling the interaction between the atmospheric boundary layer and evaporating sea spray droplets.” In *Air-Sea Fluxes of Momentum, Heat, and Chemicals,* Ed. G. L. Geernaert, Kluwer, Dordrecht, Holland, 363-409*.*

8. Garbe, C.S., Anna Rutgersson, Jacqueline Boutin, Gerrit de Leeuw, Bruno Delille, Christopher W. Fairall, Nicolas Gruber, Jeffrey Hare, David T. Ho, Martin T. Johnson, Philip D. Nightingale, Heidi Pettersson, Jacek Piskozub, Erik Sahle´, Wu-ting Tsai, Brian Ward, David K. Woolf, and Christopher J. Zappa, 2013: “Transfer across the air-sea interface”. In *Ocean-Atmosphere Interactions of Gases and Particles*, P.S. Liss and M.T. Johnson (eds.), Springer Earth System Sciences, DOI 10.1007/978-3-642-25643-1\_2, 55-112.