Fairall COD report

FY22 Publications

***\*Published***

Weller, R.A., Roger Lukas, James Potemra, Albert. J. Plueddemann, C.W. Fairall, and Sebastien Bigorre, 2022: Ocean Reference Stations: Long-term in situ observations of surface meteorology and air-sea fluxes at fixed open ocean locations are essential. *Bull. Amer. Met. Soc*., **103**. <https://doi.org/10.1175/BAMS-D-21-0084.1>.

Yang, Thomas G. Bell, Jean Bidlot, Byron W. Blomquist, Brian J. Butterworth, Yuanxu Dong, C. W. Fairall, Sebastian Landwehr, Christa A. Marandino, Scott D. Miller, Eric S. Saltzman, Alexander Zavarsky, 2022: Global synthesis of air-sea CO2 transfer velocity estimates from ship-based eddy covariance measurements. *Front. Mar. Sci.., Sec. Ocean Observation*, 9:826421 (15p). <https://doi.org/10.3389/fmars.2022.826421>.

Fairall, C.W., Ming-Xi Zhang, S.E. Brumer, B. Blomquist, T. Bell, J.B. Edson, S. Pezoa, E. Saltzmann, Elizabeth Thompson, C.J. Zappa, and L. Bariteau, 2022: Air-sea trace gas fluxes: Direct and indirect measurements*. Front. Mar. Sci.,* *Sec. Ocean Observation* **9:**826606 (16p). <https://doi.org/10.3389/fmars.2022.826606>.

Barr, Benjamin W., Shuyi S. Chen,and C. W. Fairall, 2022: Seastate-dependent sea spray and air-sea heat fluxes in tropical cyclones from a fully coupled atmosphere-wave-ocean model. *J. Atmos. Sci.,* <https://doi.org/10.1175/JAS-D-22-0126.1>.

Czerski, H., I. M. Brooks, S. Gunn, R. Pascal, A. Matei and B. W. Blomquist, 2022: Ocean bubbles under high wind conditions – Part 2: Bubble size distributions and implications for models of bubble dynamics. *Ocean Sci.*, **18** (3), 587–608, <https://doi.org/10.5194/os-2021-104>.

Czerski, H., I. M. Brooks, S. Gunn, R. Pascal, A. Matei and B. W. Blomquist. 2022: Ocean bubbles under high wind conditions. Part 1: Bubble distribution and development. *Ocean Sci.*, **18** (3), 565–586, <https://doi.org/10.5194/os-2021-103>.

Iyer, S., J. Thomson, E. J. Thompson and K. Drushka, 2022: Variations in wave slope and momentum flux from wave-current interactions in the tropical trade winds. *J. Geophys. Res. Oceans*, **127** (3), e2021JC018003, <https://doi.org/10.1029/2021JC018003>.

Iyer, S., Drushka, K., Thompson, E. J., & Thomson, J., 2022. Small-scale spatial variations of air-sea heat, moisture, and buoyancy fluxes in the tropical trade winds. Journal of Geophysical Research: Oceans, 127, <https://doi.org/10.1029/2022JC018972>

Shackelford, K., C. A. DeMott, P. J van Leeuwan, E. J. Thompson, S. Hagos, 2022: Rain-induced stratification of the tropical Indian Ocean and its potential feedbacks to the atmosphere. Journal of Geophysical Research, Oceans, <https://doi.org/10.1029/2021JC018025>

***\*In Press***

Eyre, J.R., M.F. Cronin, D. Zhang, C.W. Fairall, E. Thompson, 2022: Saildrone direct covariance wind stress in different wind and current regimes of the tropical Pacific. *J. Geophys. Res*., in press.

Bariteau, Ludovic; C.W. Fairall, B. Blomquist, and Sergio Pezoa, 2022: Summary of ship-based air-sea flux observations from 30 PSD field campaigns 1992-2020. NCEI Accession 0170257. Version 1.1. NOAA National Centers for Environmental Information. Dataset. Submitted.

Brizuela, N., S. Johnston, M. H. Alford, O. Asselin, D. L. Rudnick, J. N. Moum, and E. J. Thompson, 2020: Mixing, upwelling, and internal wave generation beneath Super Typhoon Mangkhut: a vorticity-divergence view of the ocean response to tropical cyclones. *J. Geophys. Res.*., in press.

CLIVAR *Variations* White Papers / Newsletter Articles: Satellite Observations and Needs for Air Sea Interaction; Tropical Pacific in-situ Observing System (to be released this winter/spring)

Reid, J. and many coauthors including E. J. Thompson, submitted: The coupling between tropical meteorology, aerosol science, convection and the energy budget during the Clouds, Aerosol Monsoon Processes Philippines Experiment (CAMP2Ex). *Bull. Am. Met. Soc.*, submitted.

***\*Data Reports***

Bariteau, L., 2022: WHOTS 2022 Bulk Meteorology System Ship-Based (Sept 25-39, 2022) aboard *R/V Oscar Sette*. PSD. Informal report.