NOAA/AOML

Western Boundary Time Series (WBTS)

Peer Reviewed Publications

Updated July 2025

2025

Chomiak, L. N., Volkov, D. L., Johns, W. E., Hooper V, J. A., & Smith, R. H. (2025). Deep ocean cooling and freshening from Subpolar North Atlantic reaches Subtropics at 26.5°N. *Communications Earth & Environment*, *6*(1), 1-11. https://doi.org/10.1038/s43247-025-02170-y

Volkov, D. L., Smith, R. H., & Garcia, R. F. (2025). Pressure Gauges and Satellite Altimetry Ensure the Continuity of Florida Current Transport Observations. *Geophysical Research Letters*, *52*(13), e2025GL115897. https://doi.org/10.1029/2025GL115897

2024

Biló, T.C., Perez, R.C., Dong, S. *et al.* Weakening of the Atlantic Meridional Overturning Circulation abyssal limb in the North Atlantic. *Nat. Geosci.* (2024). https://doi.org/10.1038/s41561-024-01422-4

Lee, S., Kim, D., Gomez, F. A., Lopez, H., Volkov, D. L., Dong, S., Lumpkin, R., & Yeager, S. (2024). A pause in the weakening of the Atlantic meridional overturning circulation since the early 2010s. *Nature Communications*, *15*(1), 1-13. https://doi.org/10.1038/s41467-024-54903-w

Volkov, D.L., J.K. Willis, W. Hobbs, Y. Fu, S.M. Lozier, W.E. Johns, D.A. Smeed, B.I. Moat, I. Pita, M. Goes, S. Dong, R.H. Smith, and S. Elipot. Global oceans: Meridional overturning circulation and heat transport in the Atlantic Ocean. In Chapter 3, *State of the Climate in 2023*. Bulletin of the American Meteorological Society, 105(8):S191-S19E, https://doi.org/10.1175/BAMS-D-24-0100.1 2024

Volkov, D. L., Smith, R. H., Garcia, R. F., Smeed, D. A., Moat, B. I., Johns, W. E., & Baringer, M. O. (2024). Florida Current transport observations reveal four decades of steady state. *Nature Communications*, *15*(1), 1-12. https://doi.org/10.1038/s41467-024-51879-5

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Johns, W.E., S. Elipot, D.A. Smeed, B. Moat, B. King, D.L. Volkov, and R.H. Smith, 2023: Towards two decades of Atlantic Ocean mass and heat transports at 26.5°N. *Phil. Trans. R. Soc. A.***381:** 20220188. http://doi.org/10.1098/rsta.2022.0188

Moat B.I.; Smeed D.A.; Rayner D.; Johns W.E.; Smith, R.; Volkov, D.; Baringer M. O.; and Collins, J. (2023). Atlantic meridional overturning circulation observed by the RAPID-MOCHA-WBTS (RAPID-Meridional Overturning Circulation and Heatflux Array-Western Boundary

Time Series) array at 26N from 2004 to 2022 (v2022.1), British Oceanographic Data Centre - Natural Environment Research Council, UK. doi: 10.5285/04c79ece-3186-349a-e063-6c86abc0158c

Pujiana, K., Volkov, D. L., Dong, S., Goni, G., Baringer, M., Smith, R. H., & Garcia, R. (2023). Genesis of the Gulf Stream Subseasonal Variability in the Florida Straits. Journal of Geophysical Research: Oceans, 128(2), e2022JC018555. https://doi.org/10.1029/2022JC018555

Volkov, D.L., D.A. Smeed, M. Lankhorst, S. Dong, B.I. Moat, J. Willis, W. Hobbs, T. Bilo, W. Johns, and L. Chomiak, 2023: Meridional overturning circulation and heat transport in the Atlantic Ocean. In Chapter 3, *State of the Climate in 2022*. Bulletin of the American Meteorological Society, 104(9):S181-S184, https://doi.org/10.1175/BAMS-D-23-0076.2

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Volkov, D.L., R.H. Smith, C.S. Meinen, R. Garcia, M. Baringer, & G. Goni (2022). The skill of measuring the Florida Current volume transport from space. In: V. Barale, J.F.R. Gower and L. Alberotanza, Eds. Proceedings “Oceans from Space” V, Venice 2022. NSA GROUP, Roma, pp. 252, doi:10.57648/OceansFromSpaceV-2022-PROCEEDINGS

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