Supplementary material

1 Wind direction analysis

1.1 Wind directions at TCCON sites

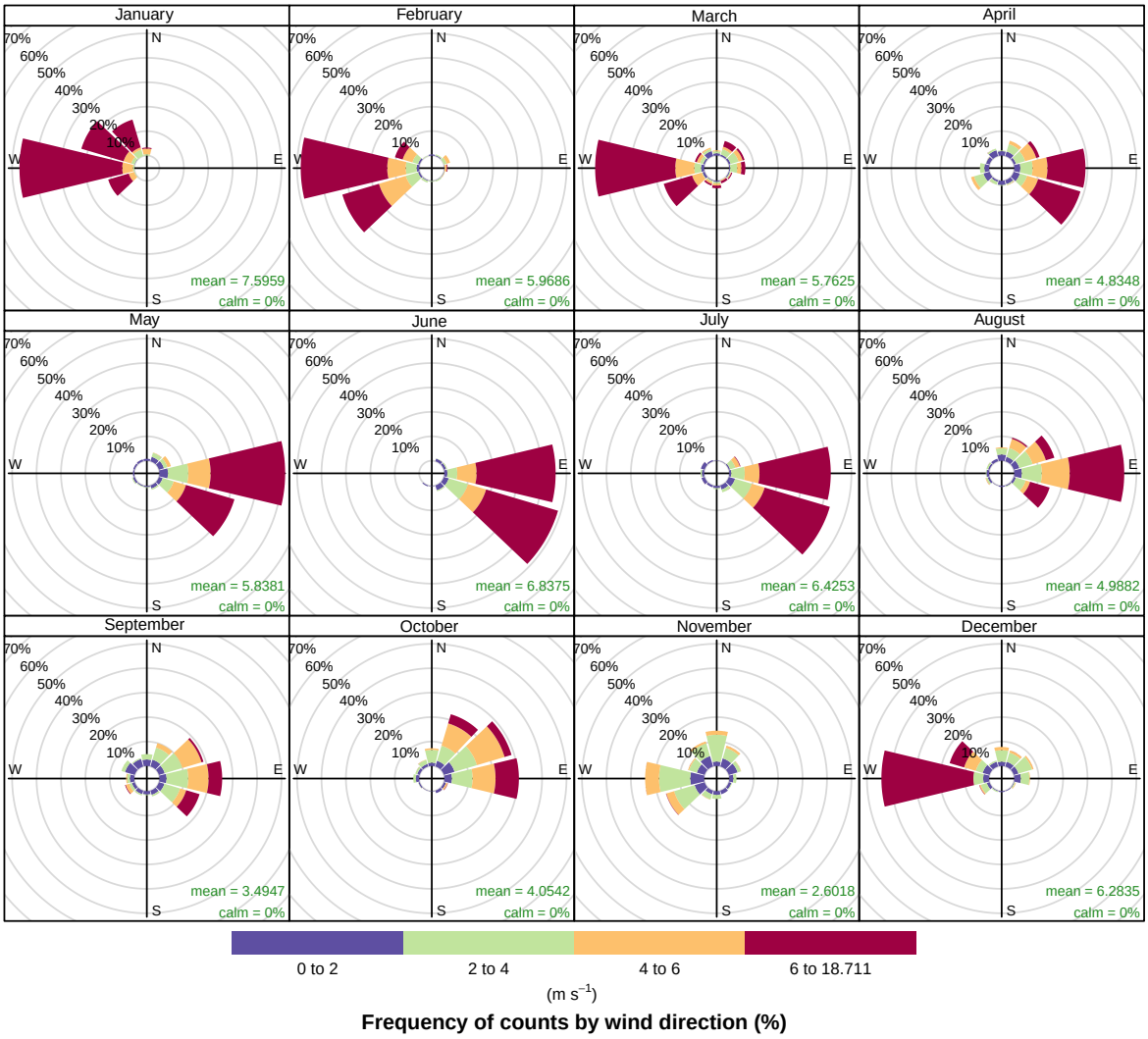

Figure S1. Wind rose TCCON Darwin location for 2015.

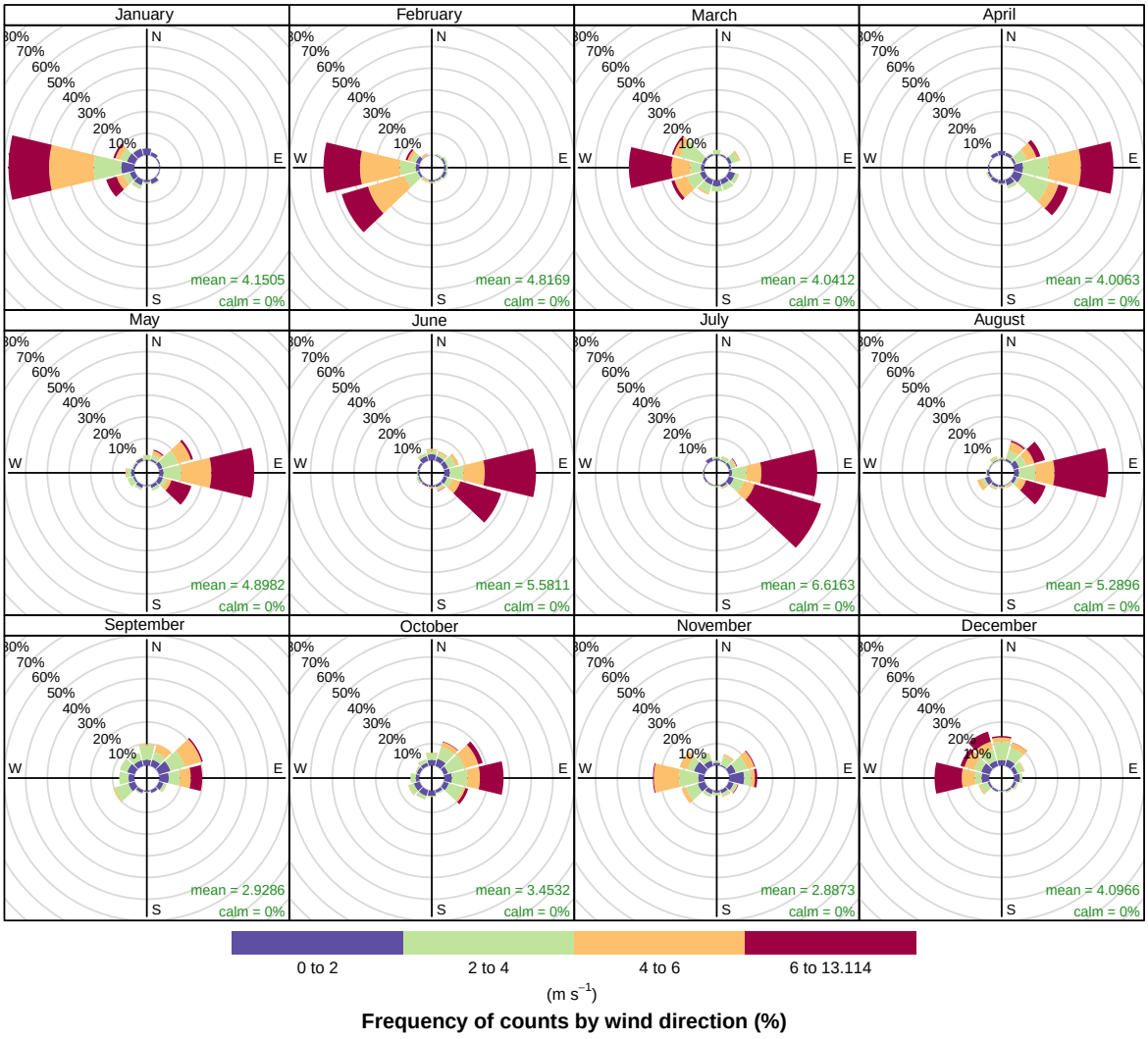

Figure S2. Wind rose TCCON Darwin location for 2016.

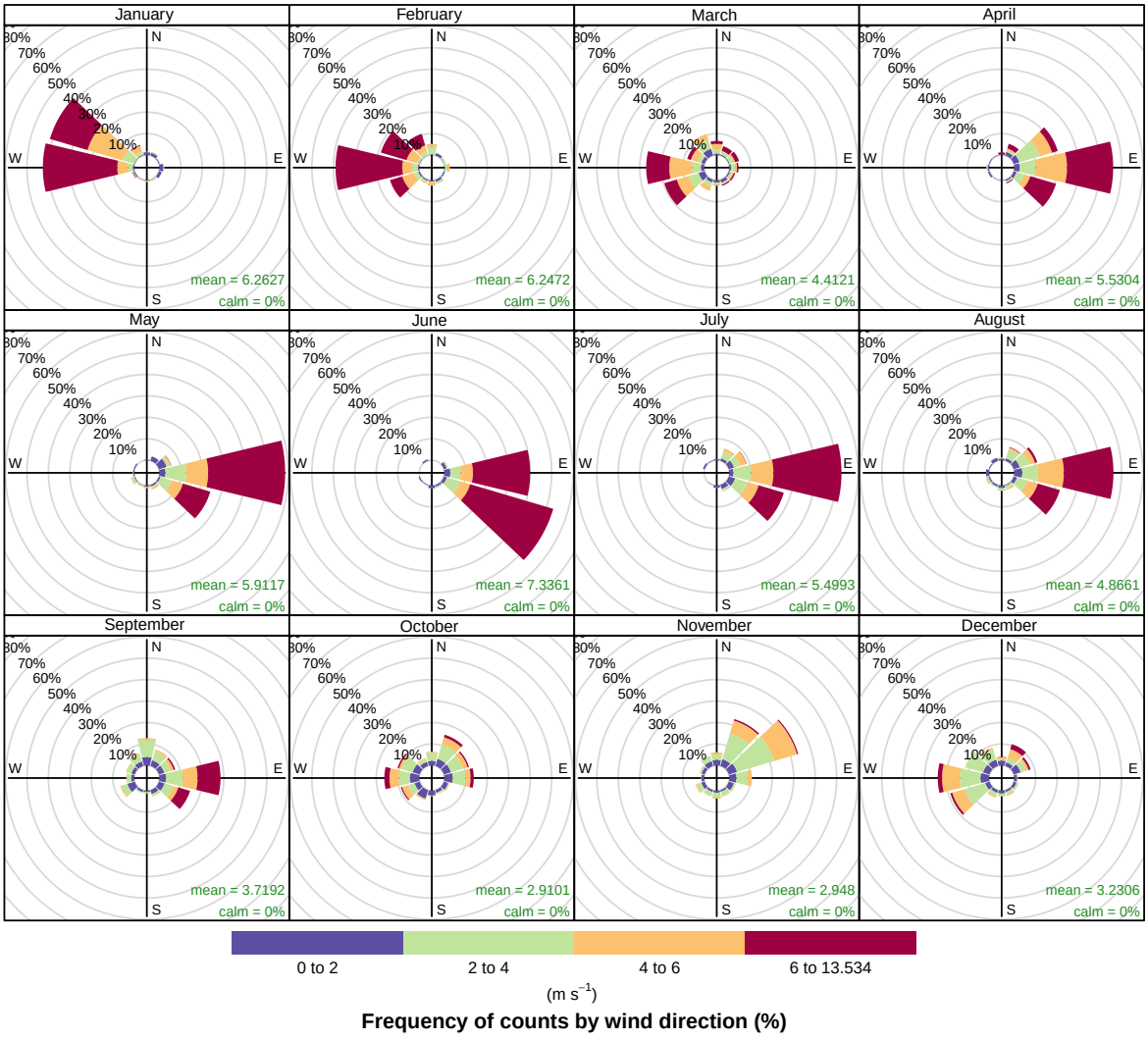

Figure S3. Wind rose TCCON Darwin Location for 2017.

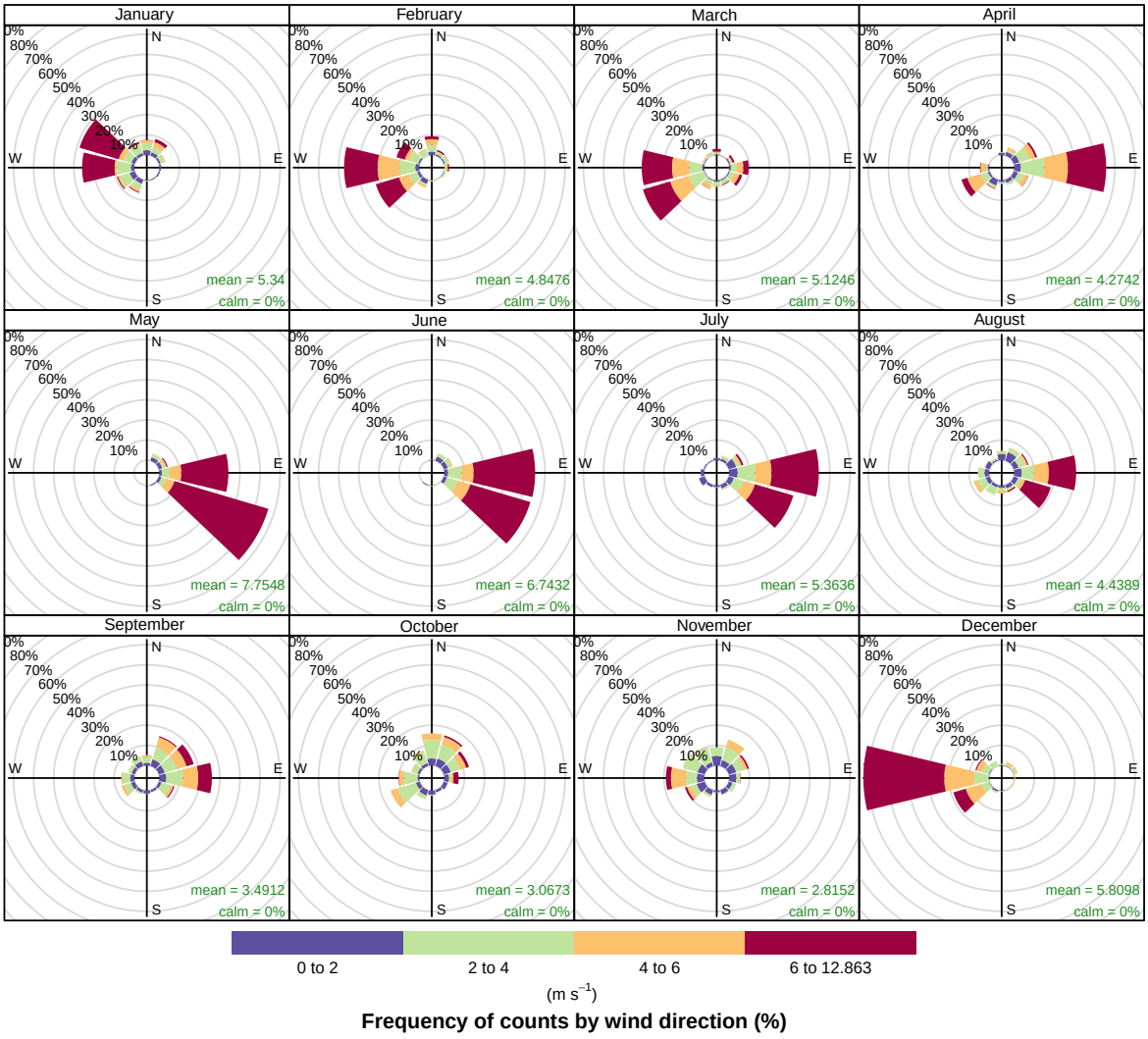

Figure S4. Wind rose TCCON Darwin Location for 2018.

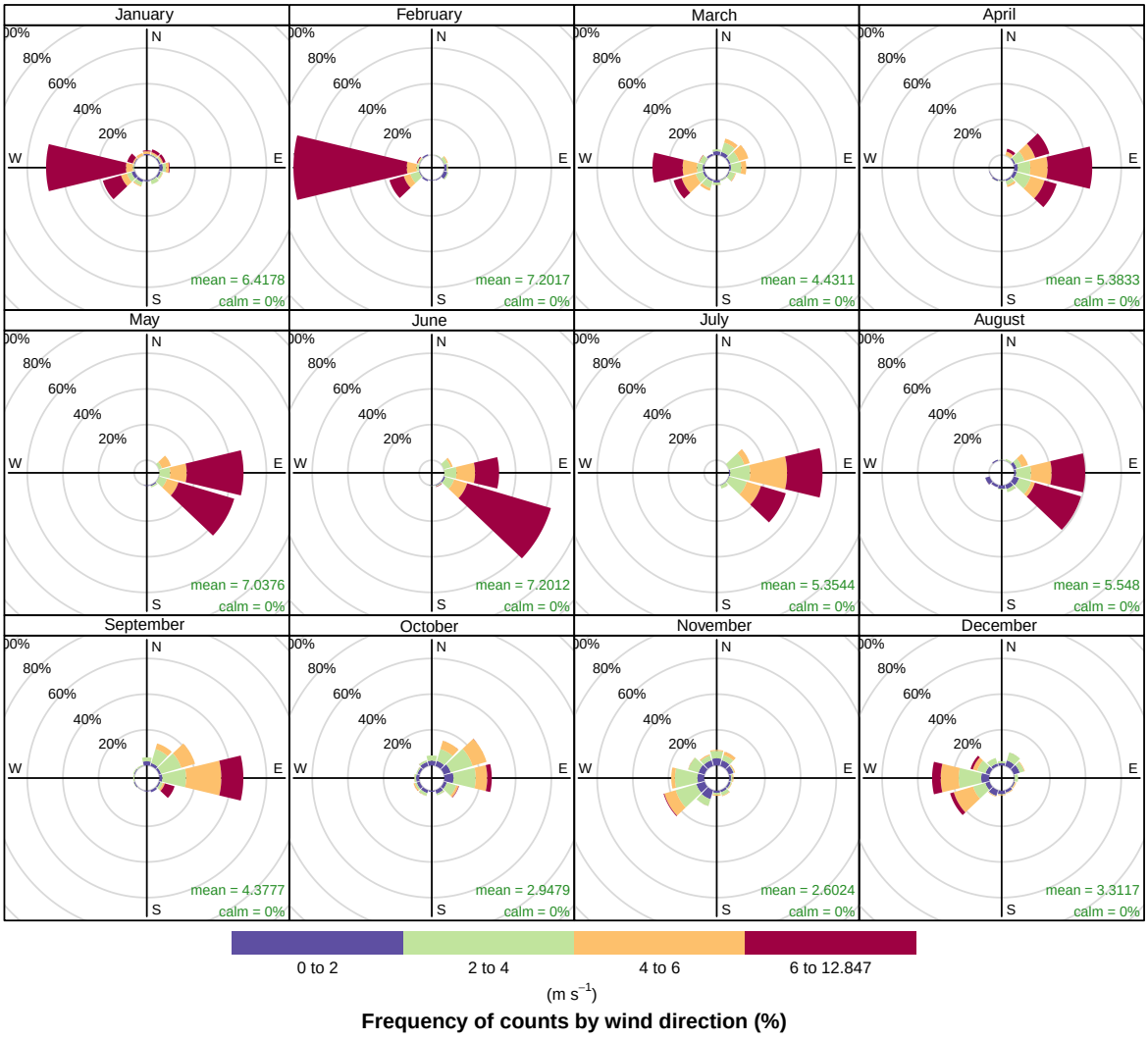

Figure S5. Wind rose TCCON Darwin Location for 2019.

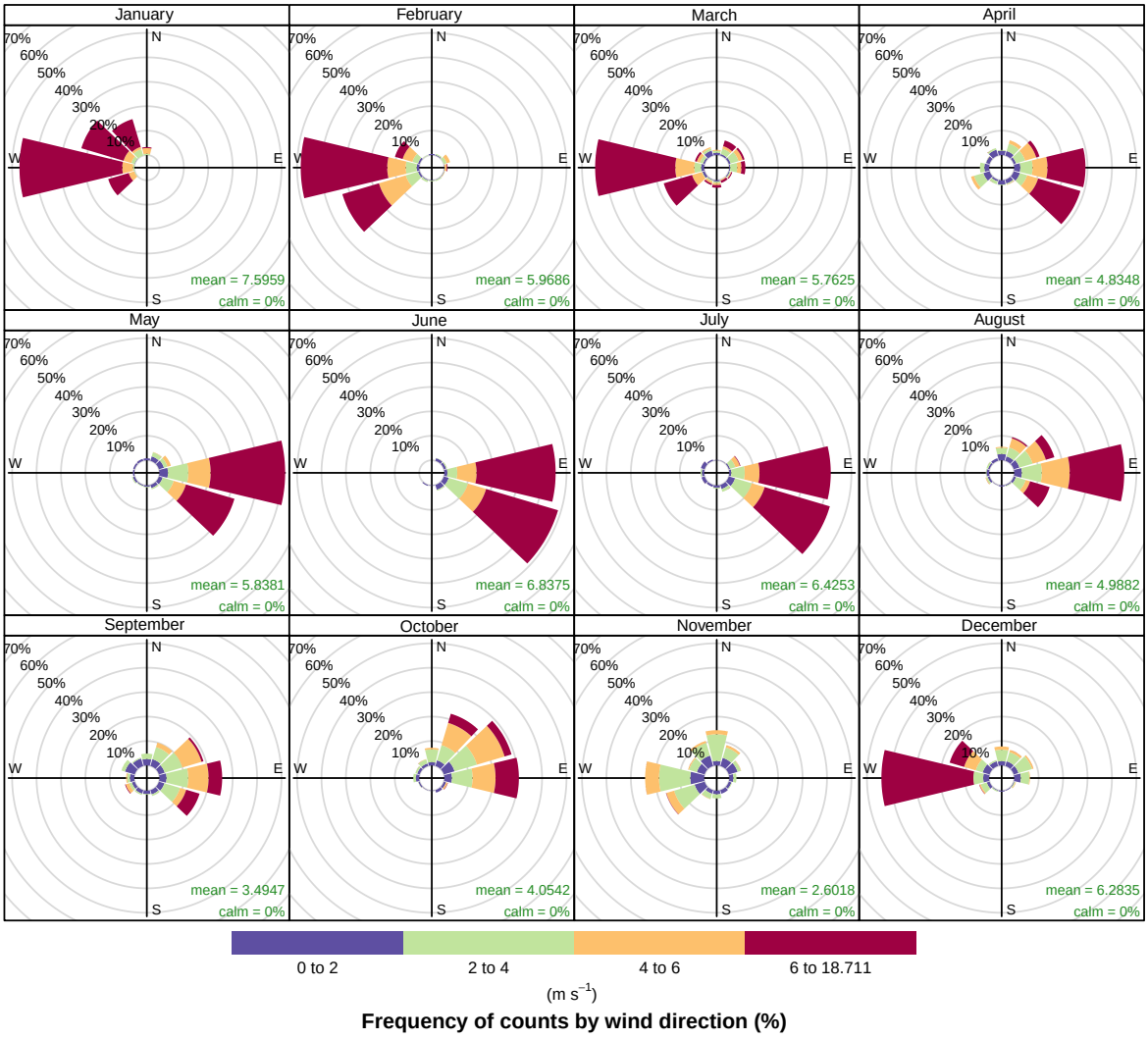

Figure S6. Wind rose TCCON Lauder location for 2015.

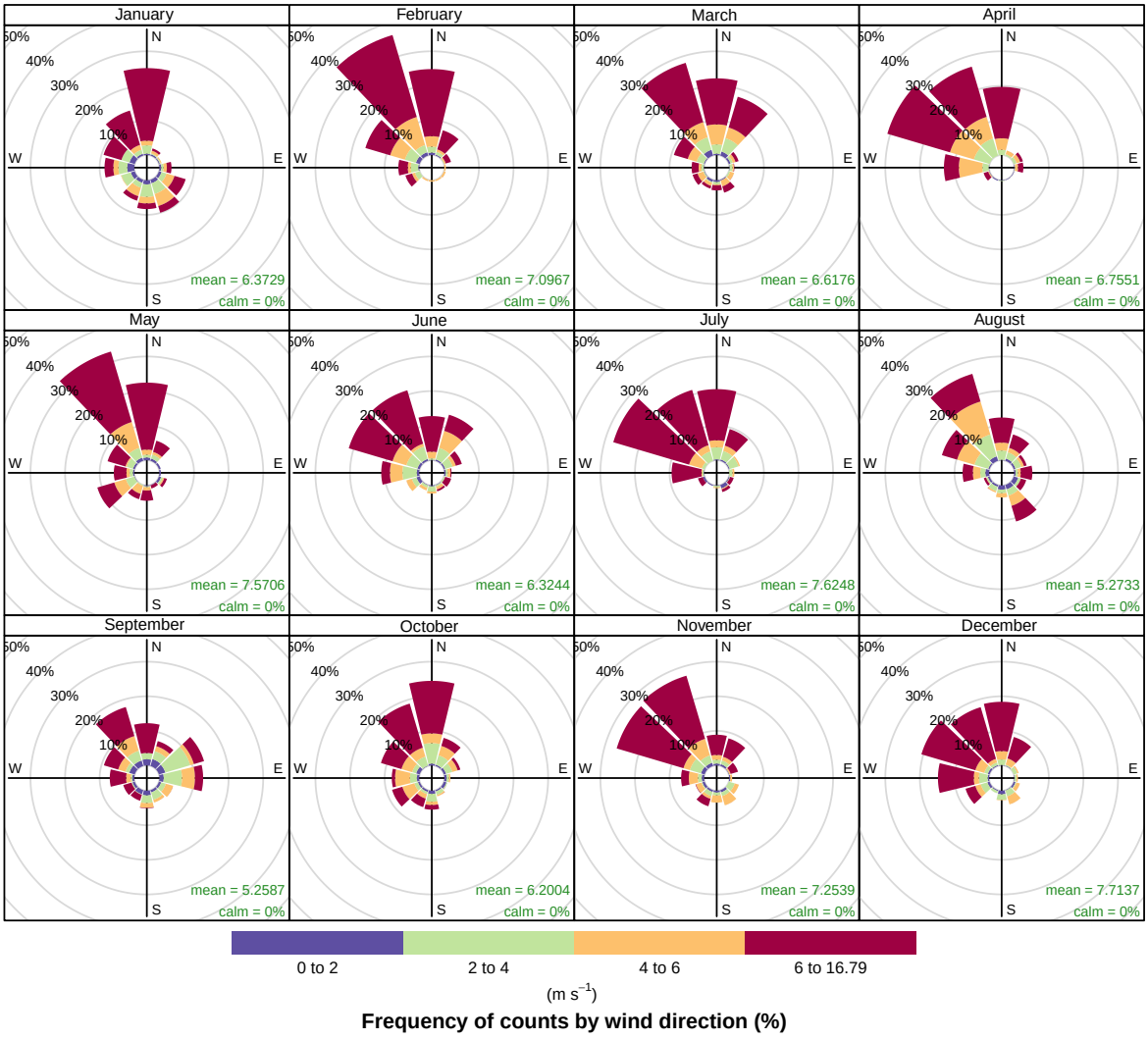

Figure S7. Wind rose TCCON Lauder location for 2016.

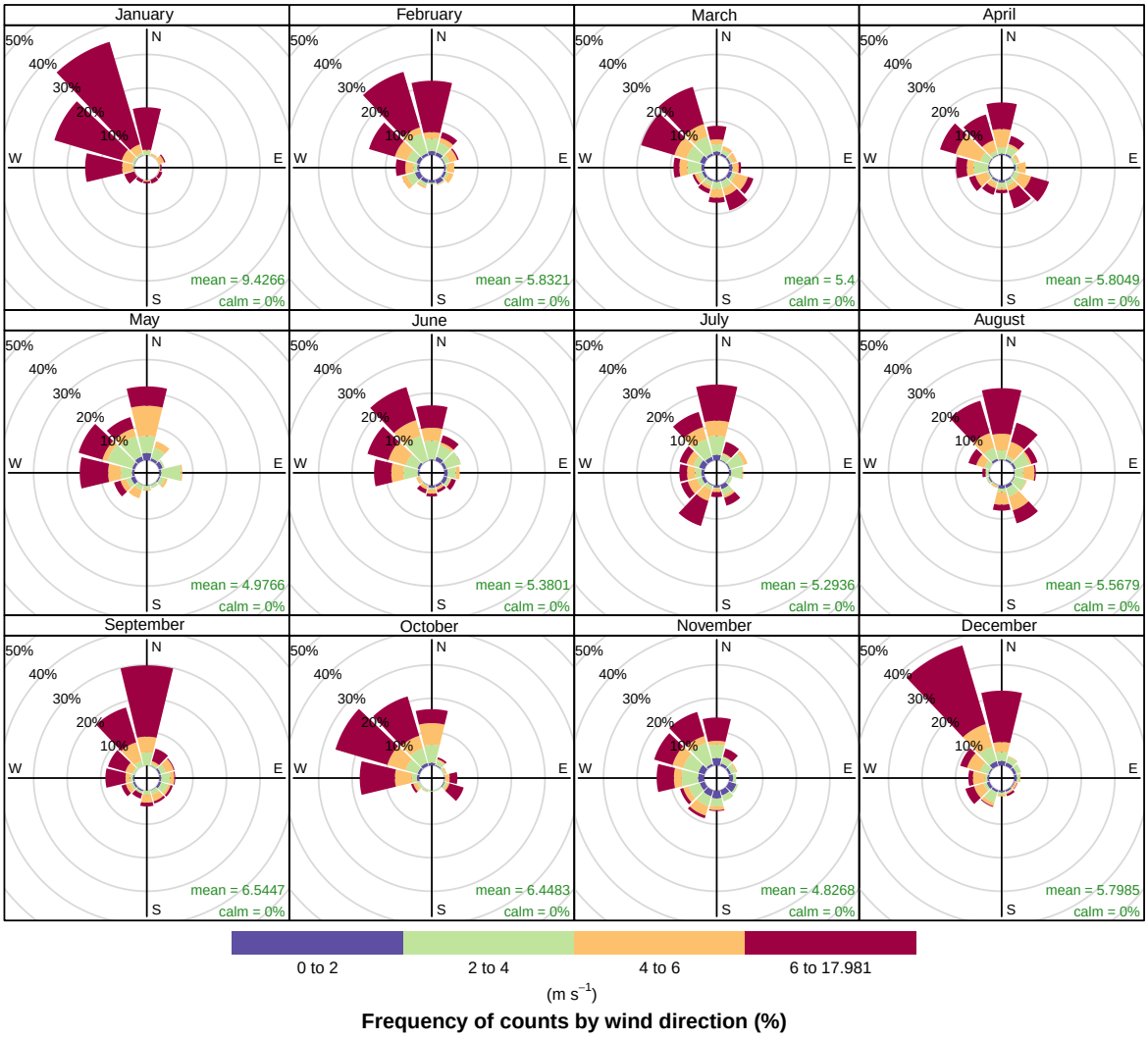

Figure S8. Wind rose TCCON Lauder Location for 2017.

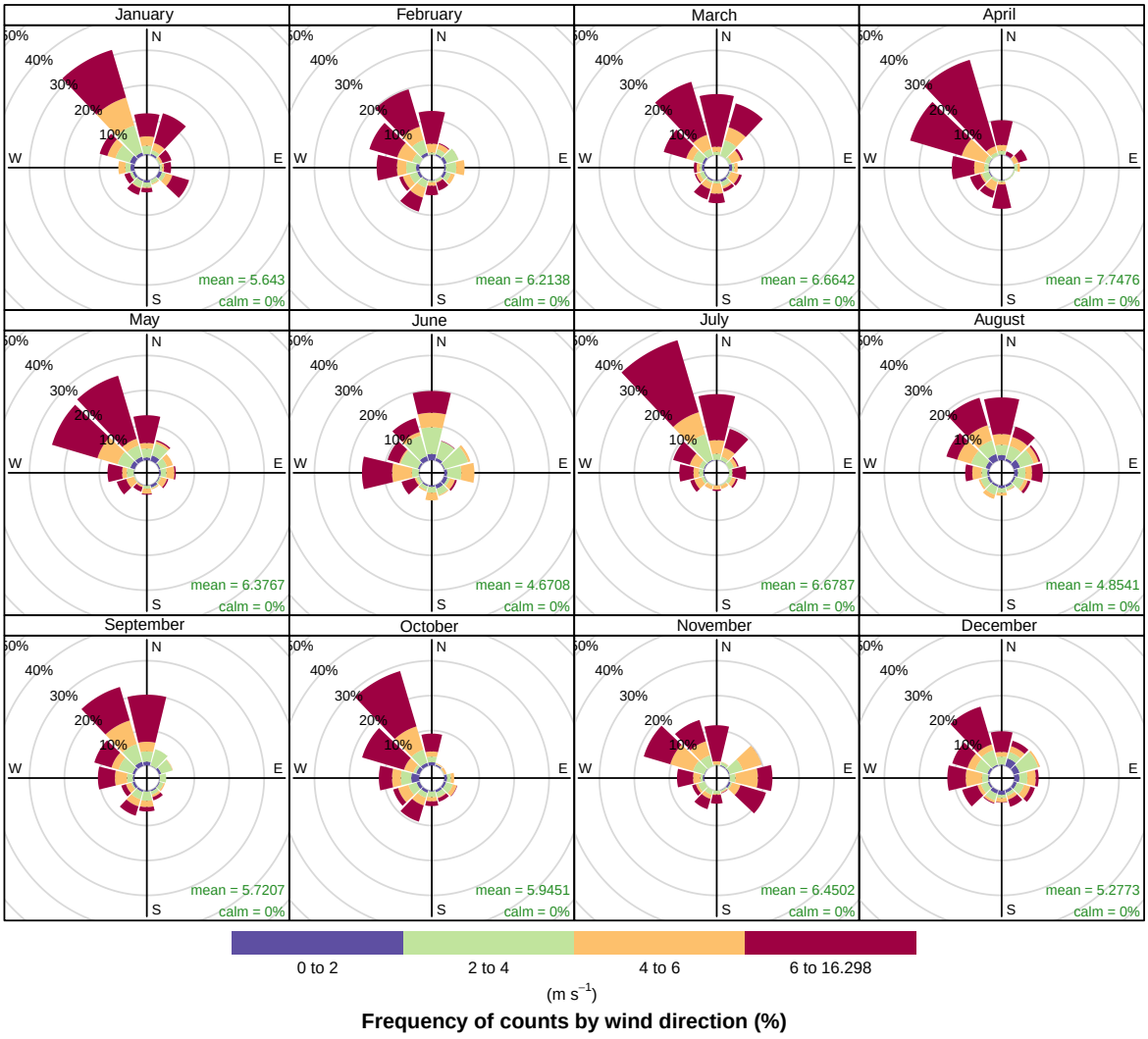

Figure S9. Wind rose TCCON Lauder Location for 2018.

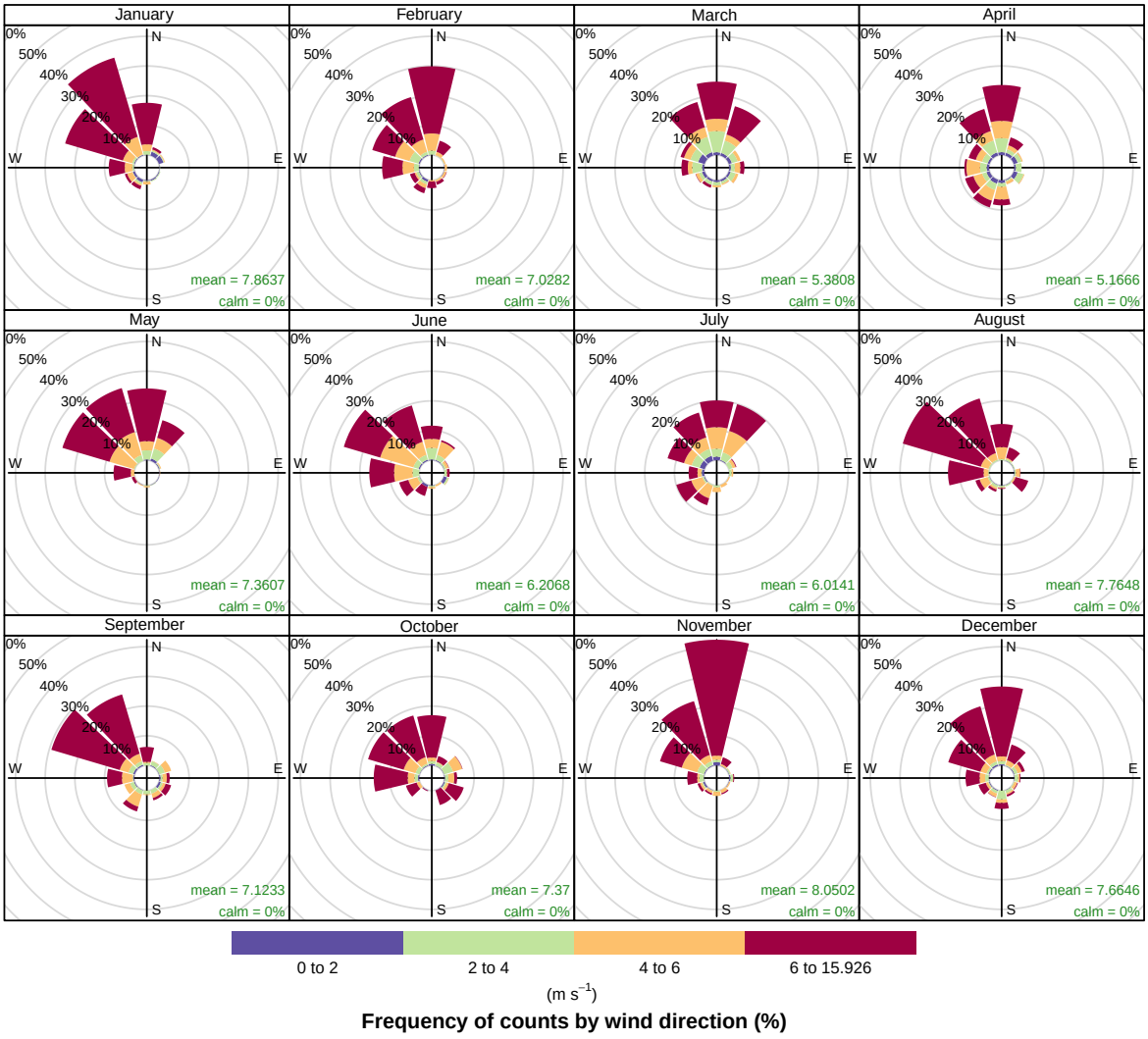

Figure S10. Wind rose TCCON Lauder Location for 2019.

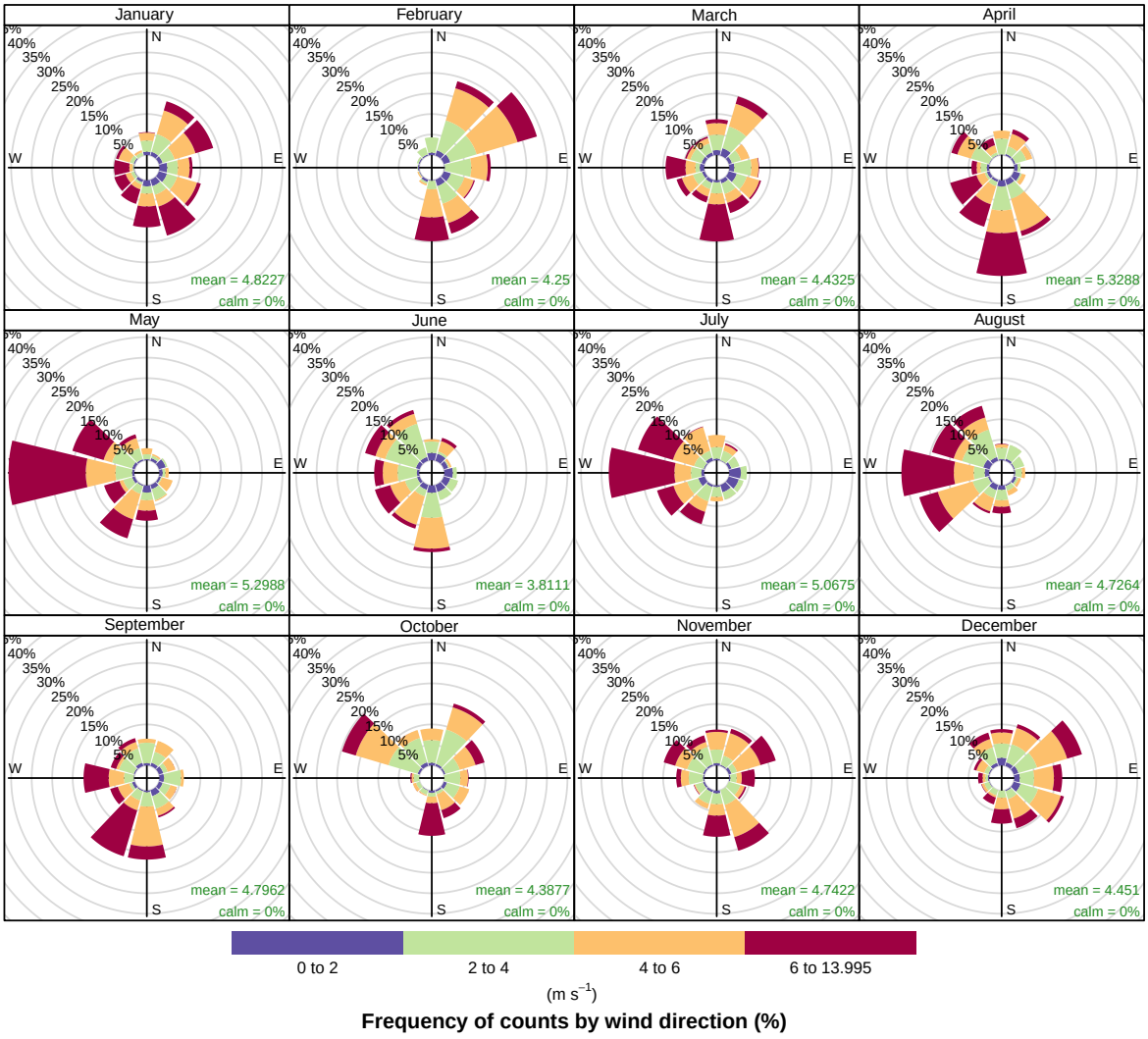

Figure S11. Wind rose TCCON Wollongong location for 2015.

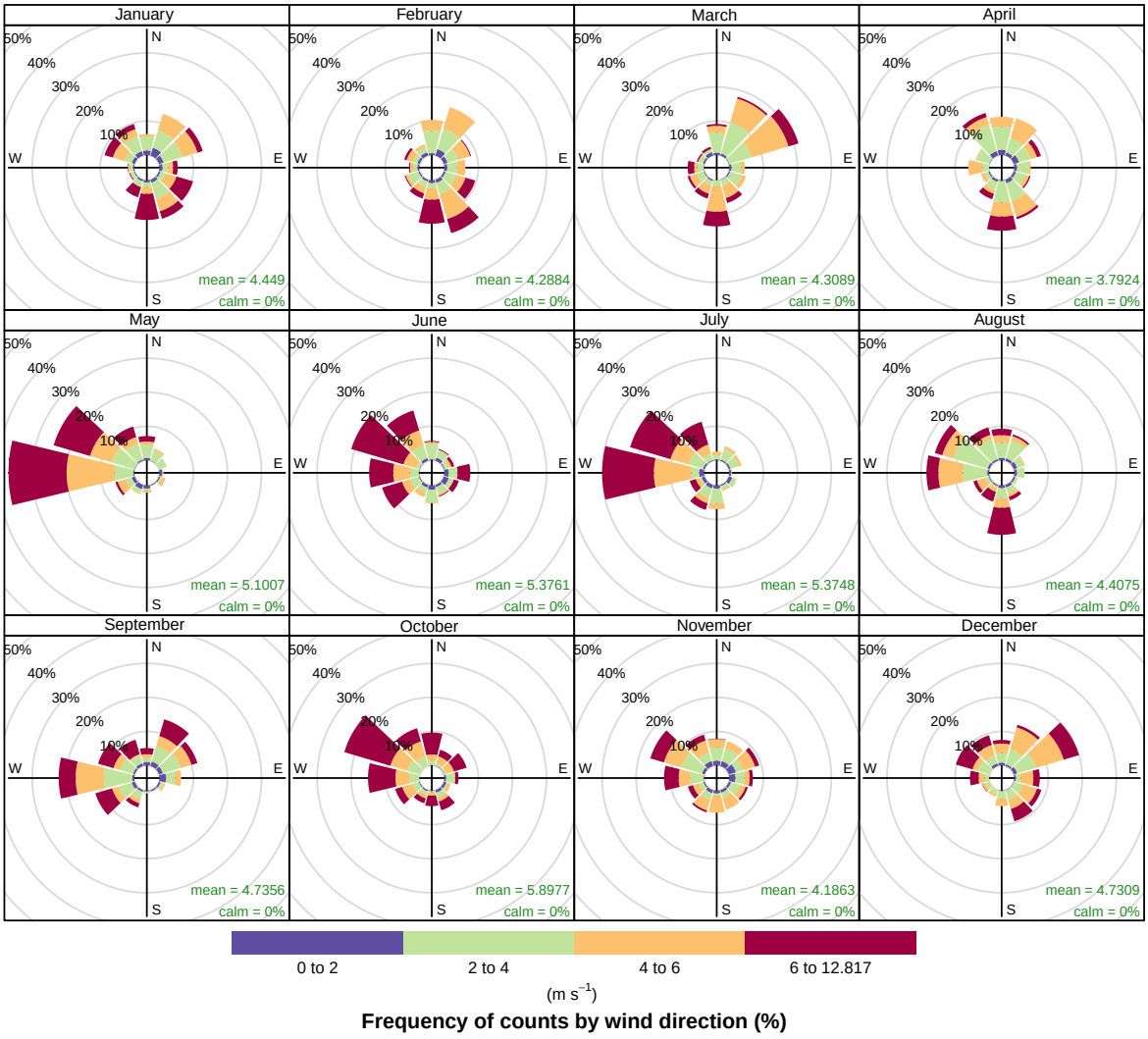

Figure S12. Wind rose TCCON Wollongong location for 2016.

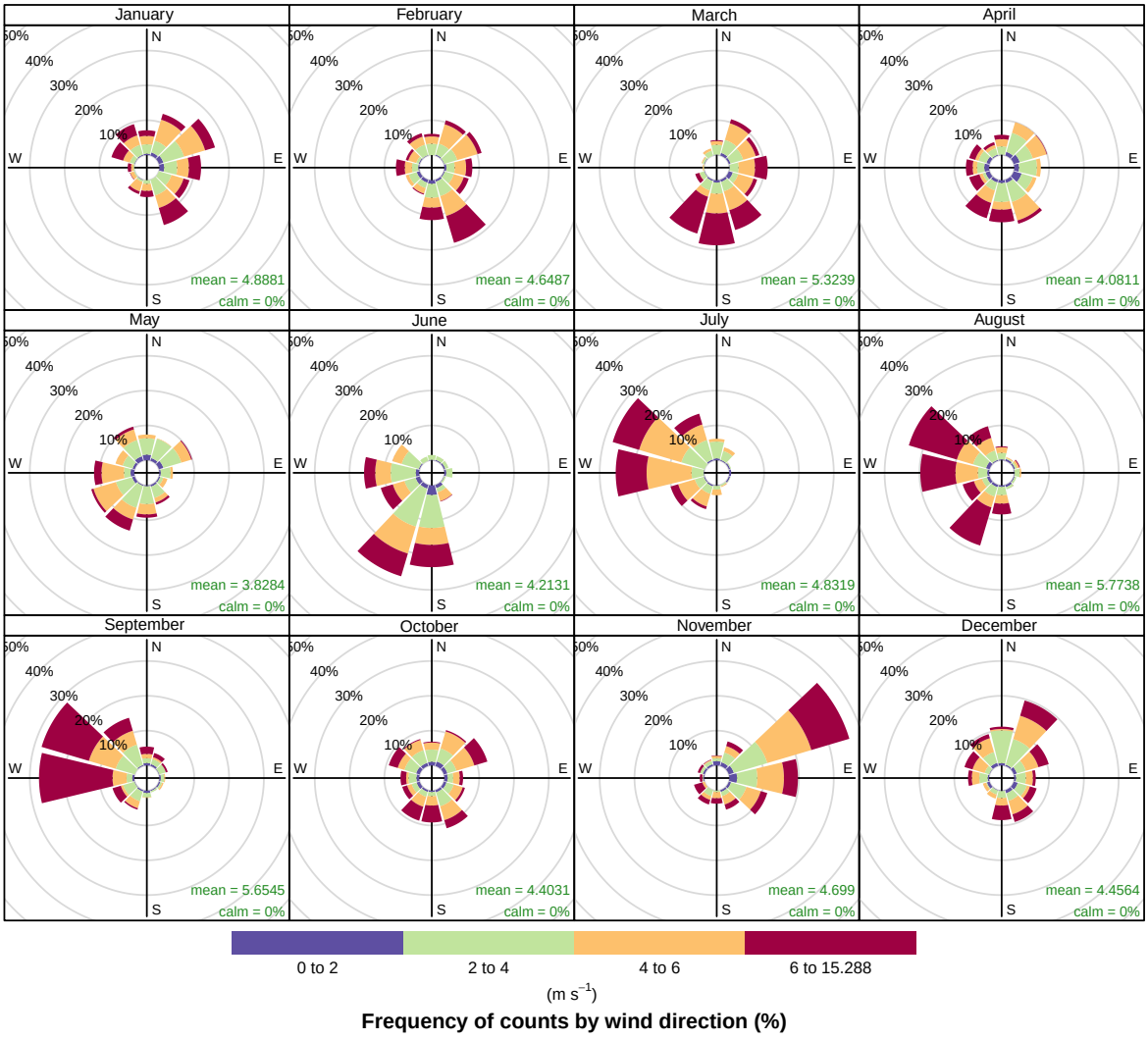

Figure S13. Wind rose TCCON Wollongong Location for 2017.

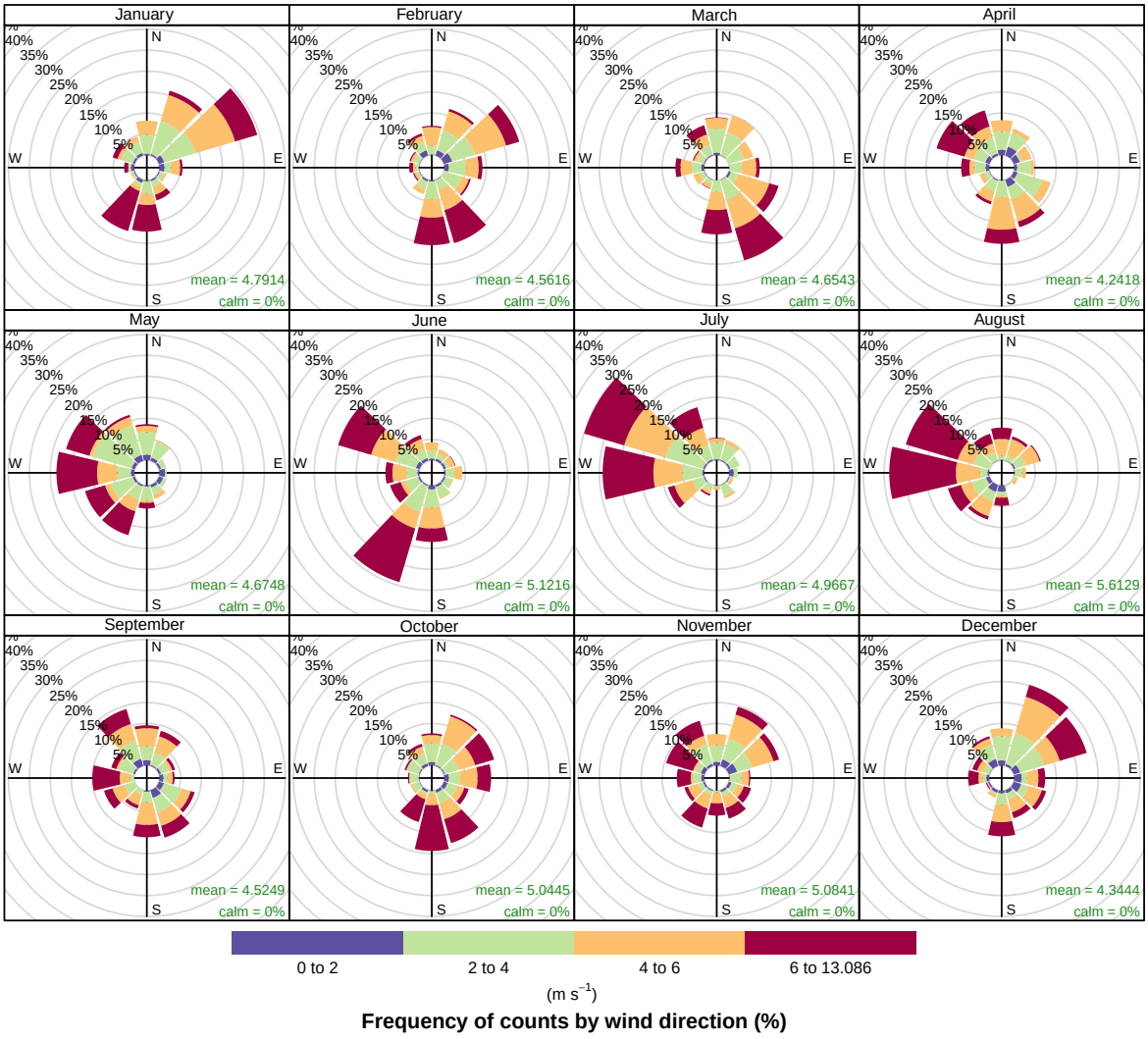

Figure S14. Wind rose TCCON Wollongong Location for 2018.

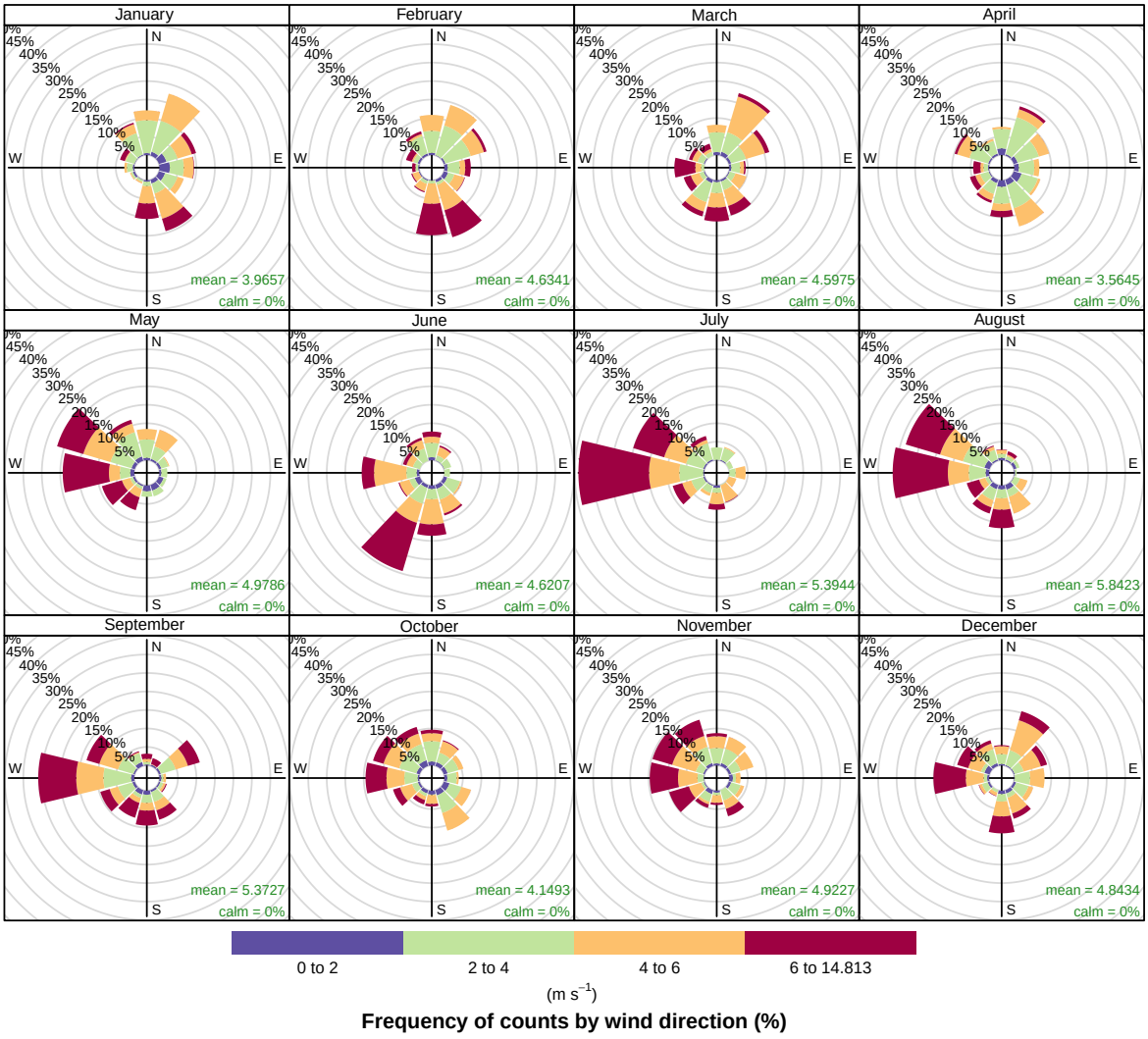

Figure S15. Wind rose TCCON Wollongong Location for 2019.

1.2 Wind directions at in-situ sites

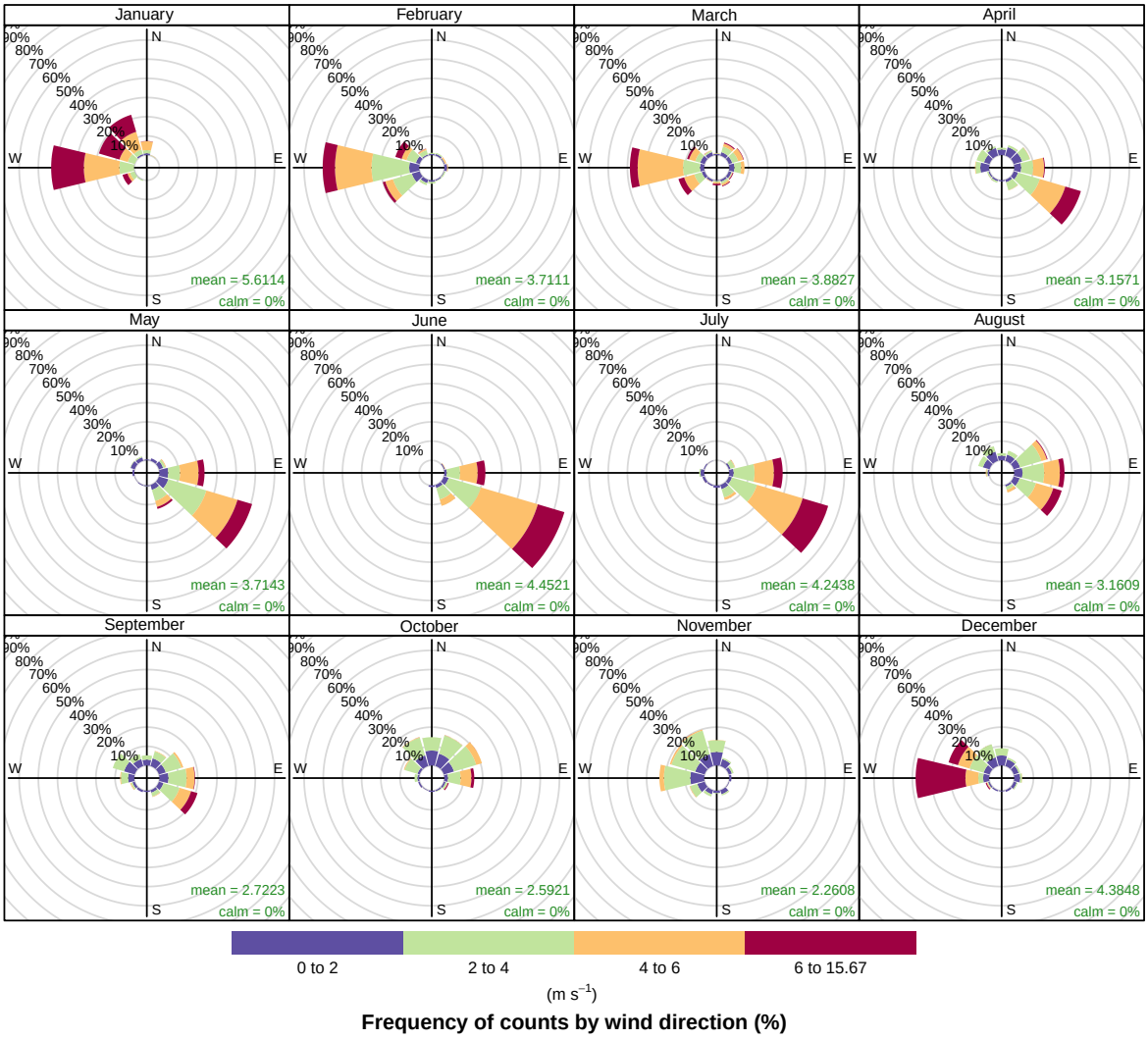

Figure S16. Wind rose Gunn Point location for 2015.

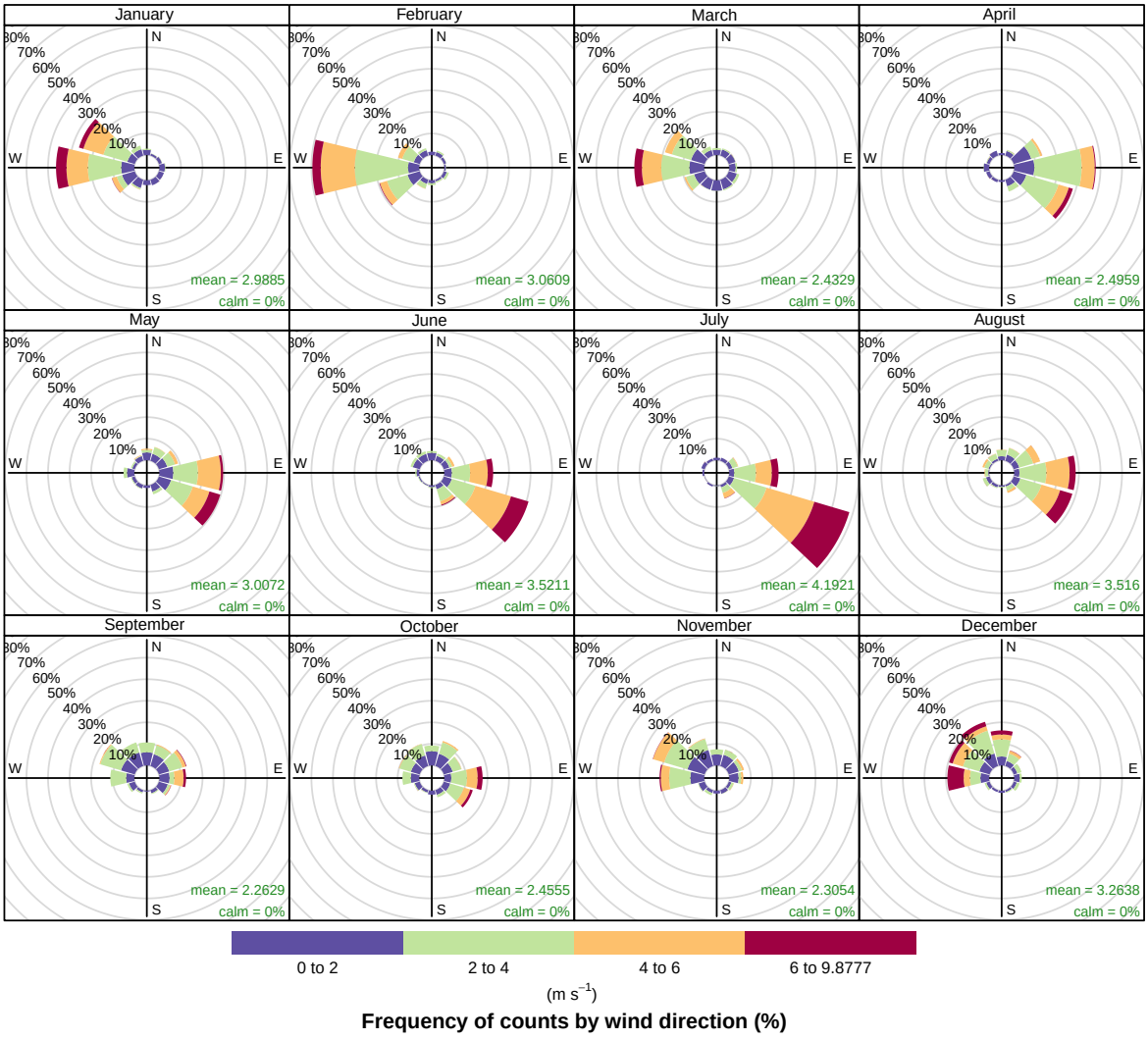

Figure S17. Wind rose Gunn Point location for 2016.

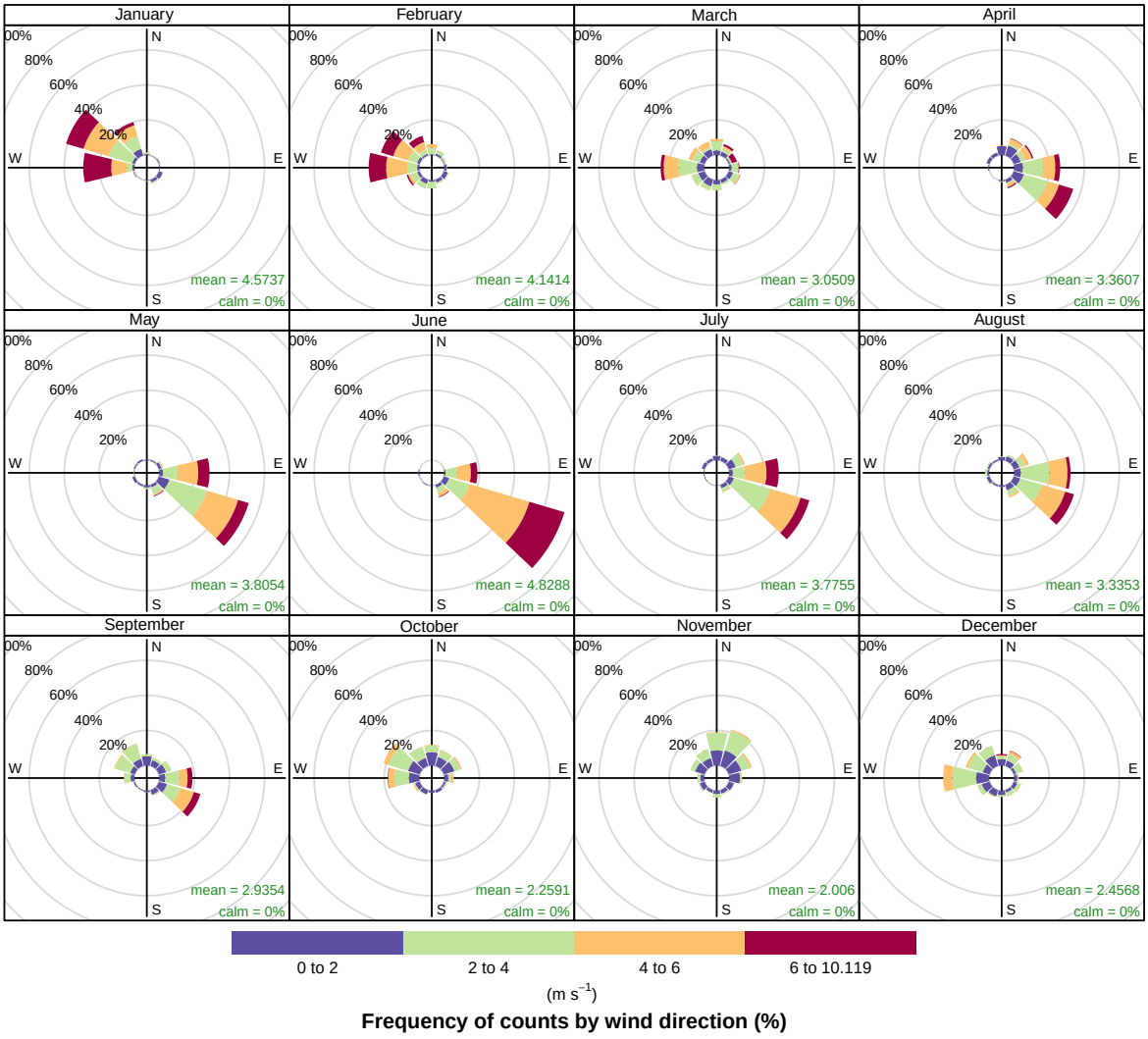

Figure S18. Wind rose Gunn Point Location for 2017.

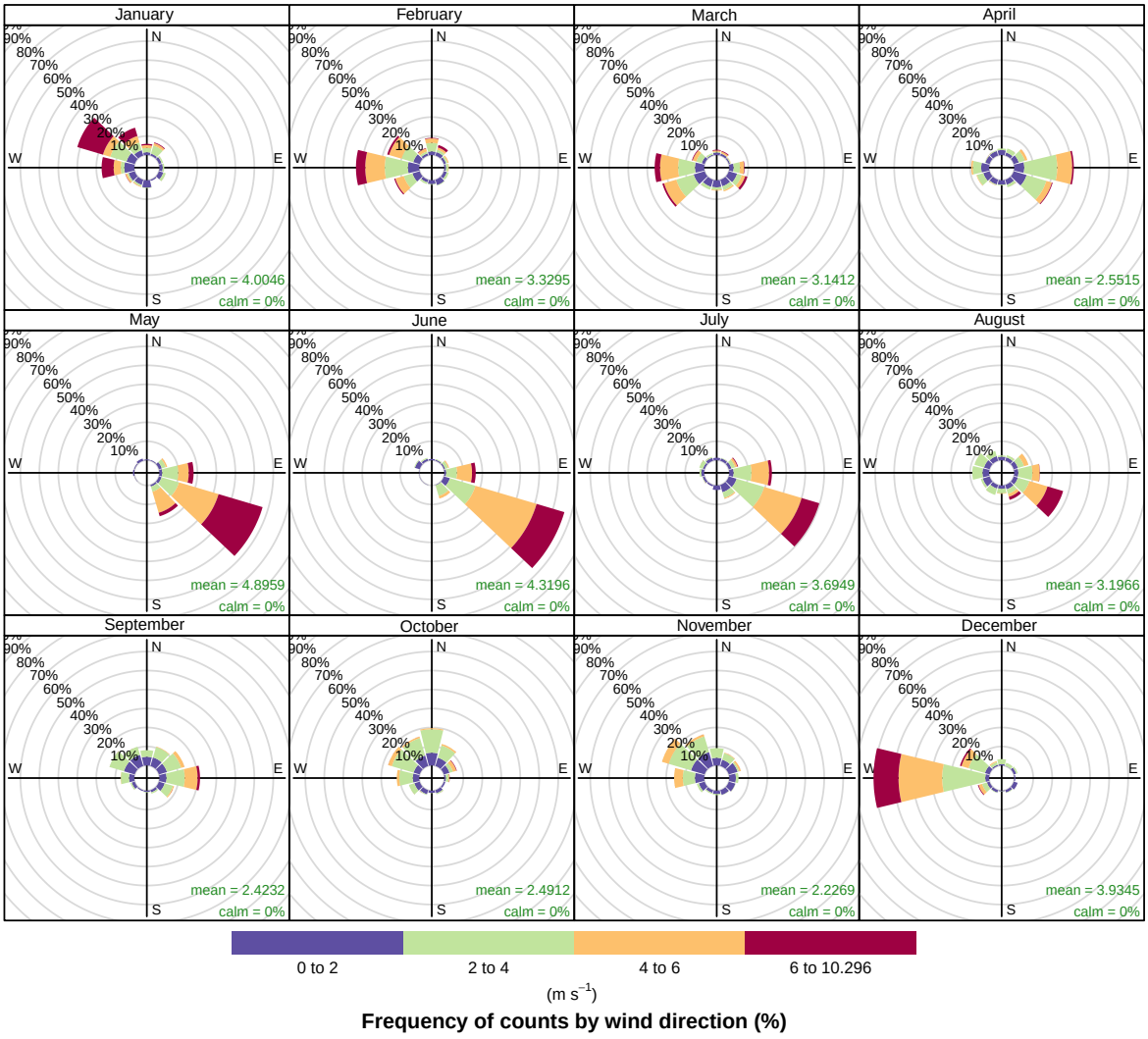

Figure S19. Wind rose Gunn Point Location for 2018.

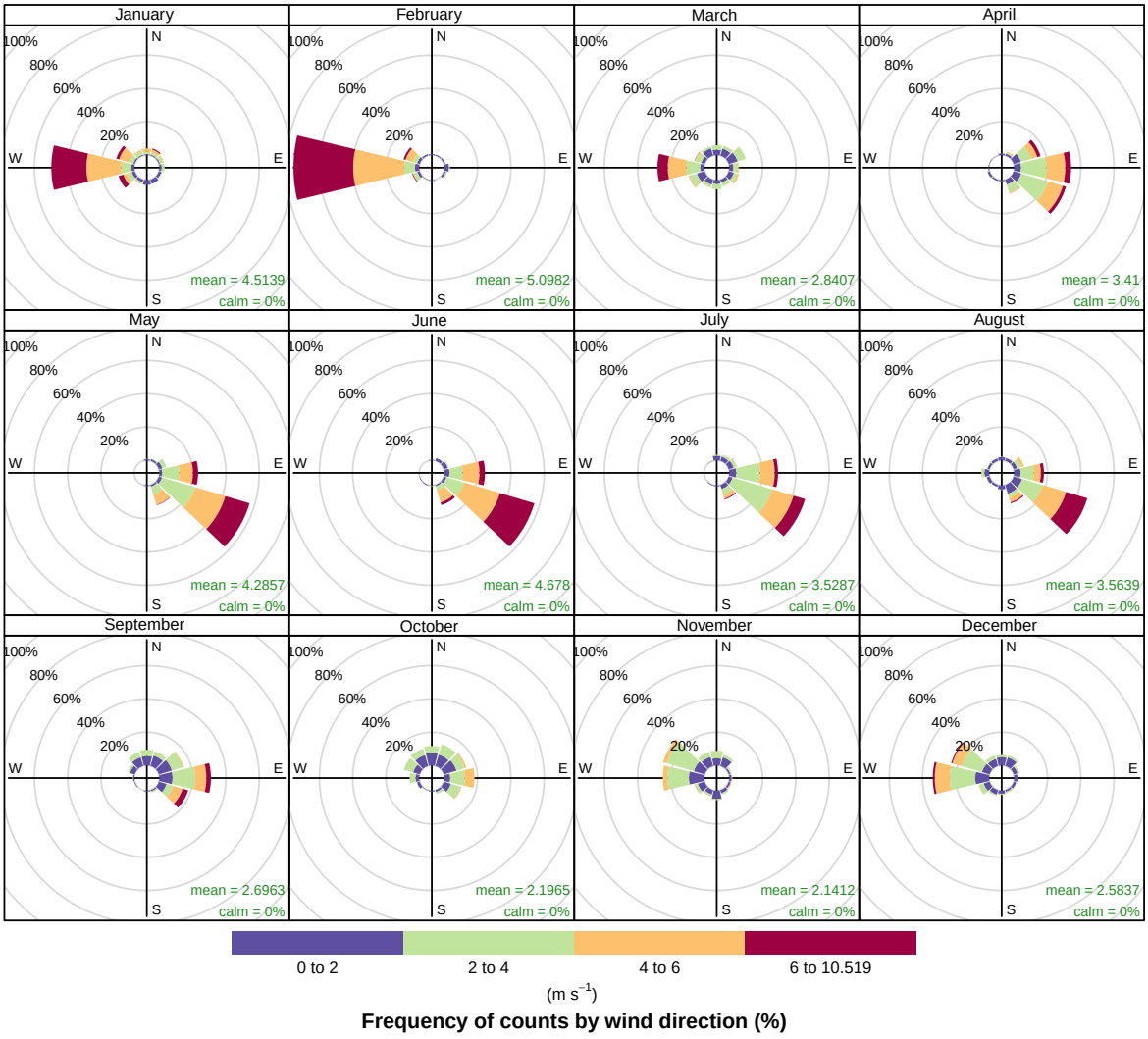

Figure S20. Wind rose Gunn Point Location for 2019.

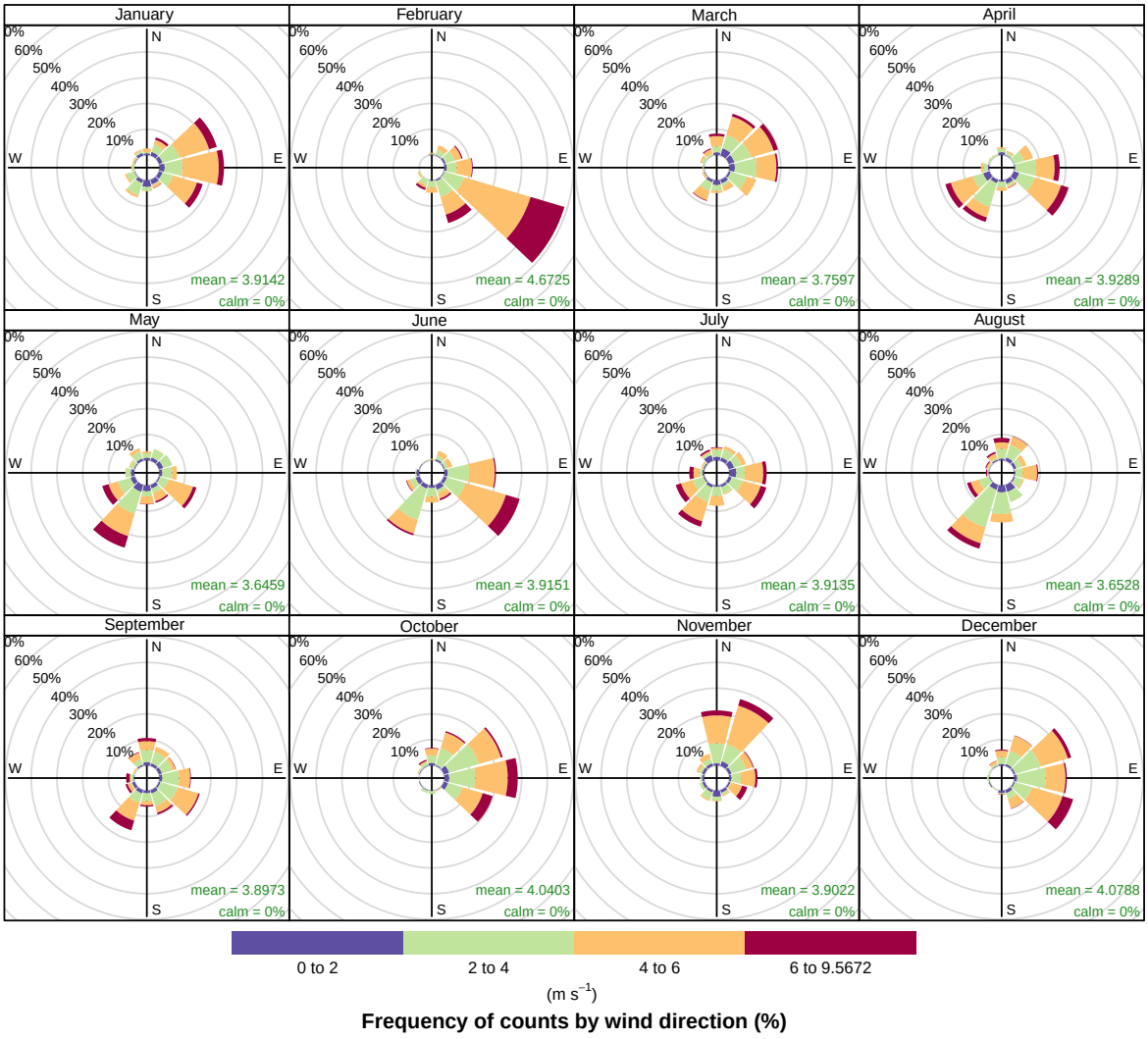

Figure S21. Wind rose Burncluith location for 2015.

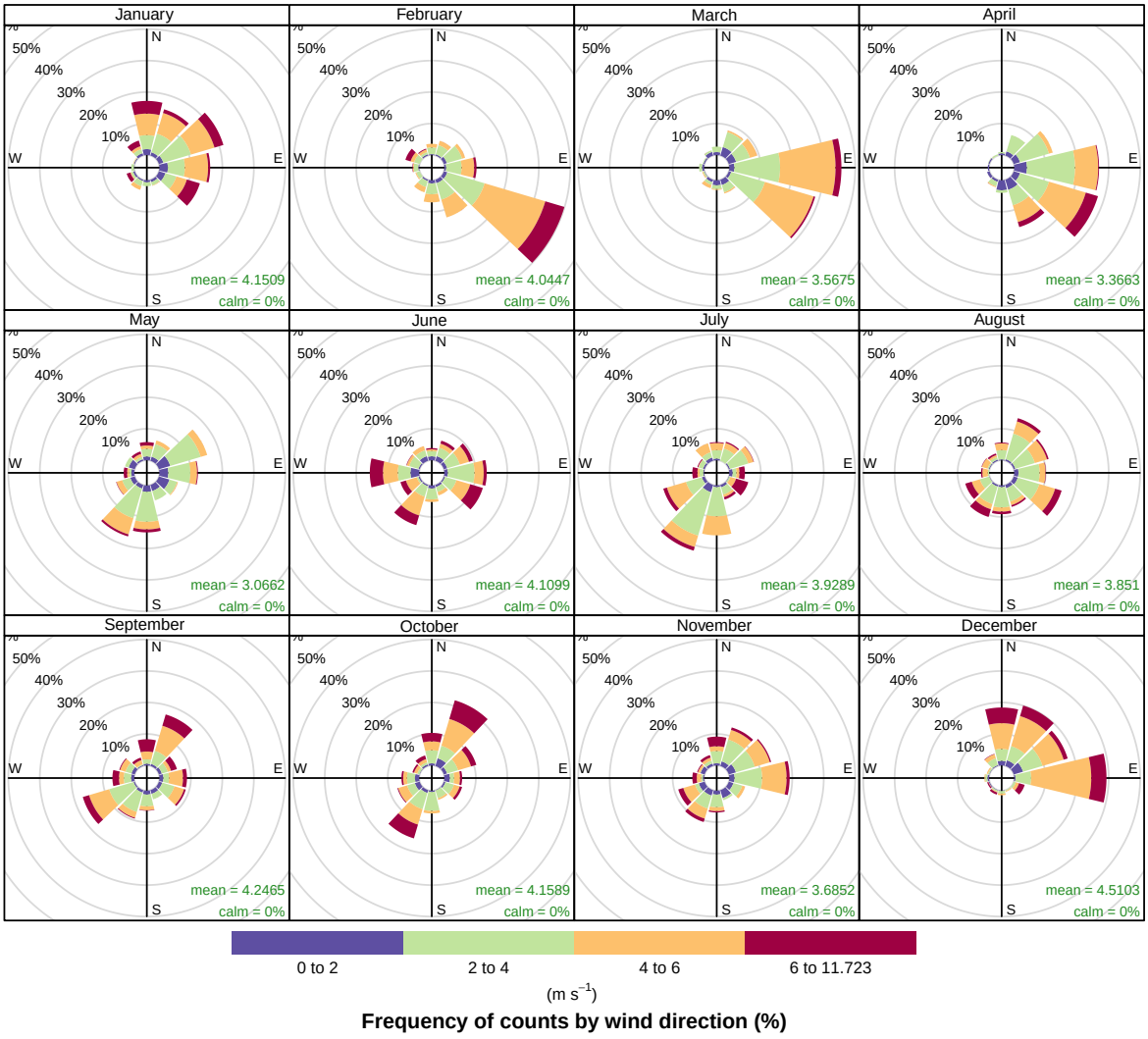

Figure S22. Wind rose Burncluith location for 2016.

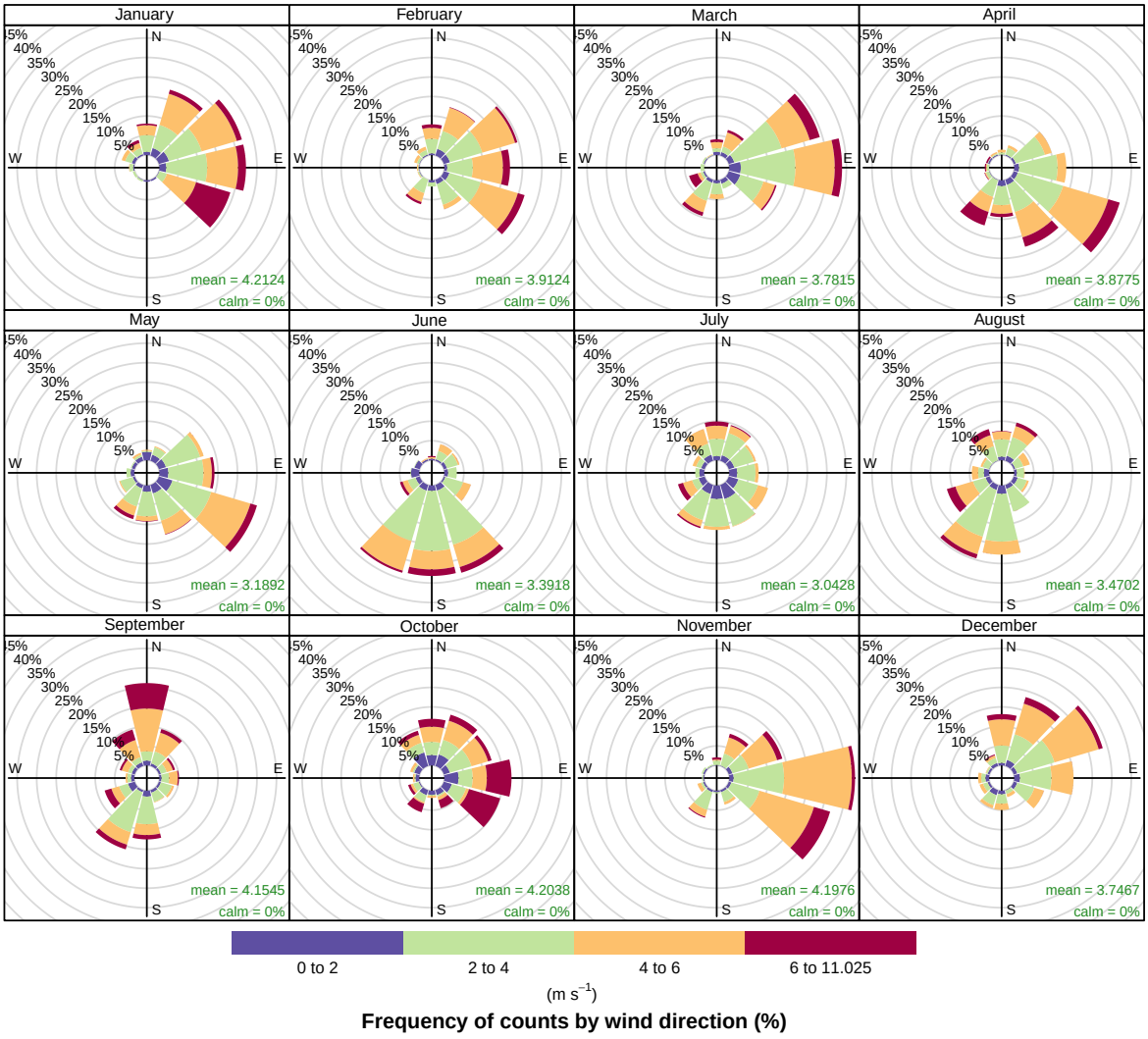

Figure S23. Wind rose Burncluith location for 2017.

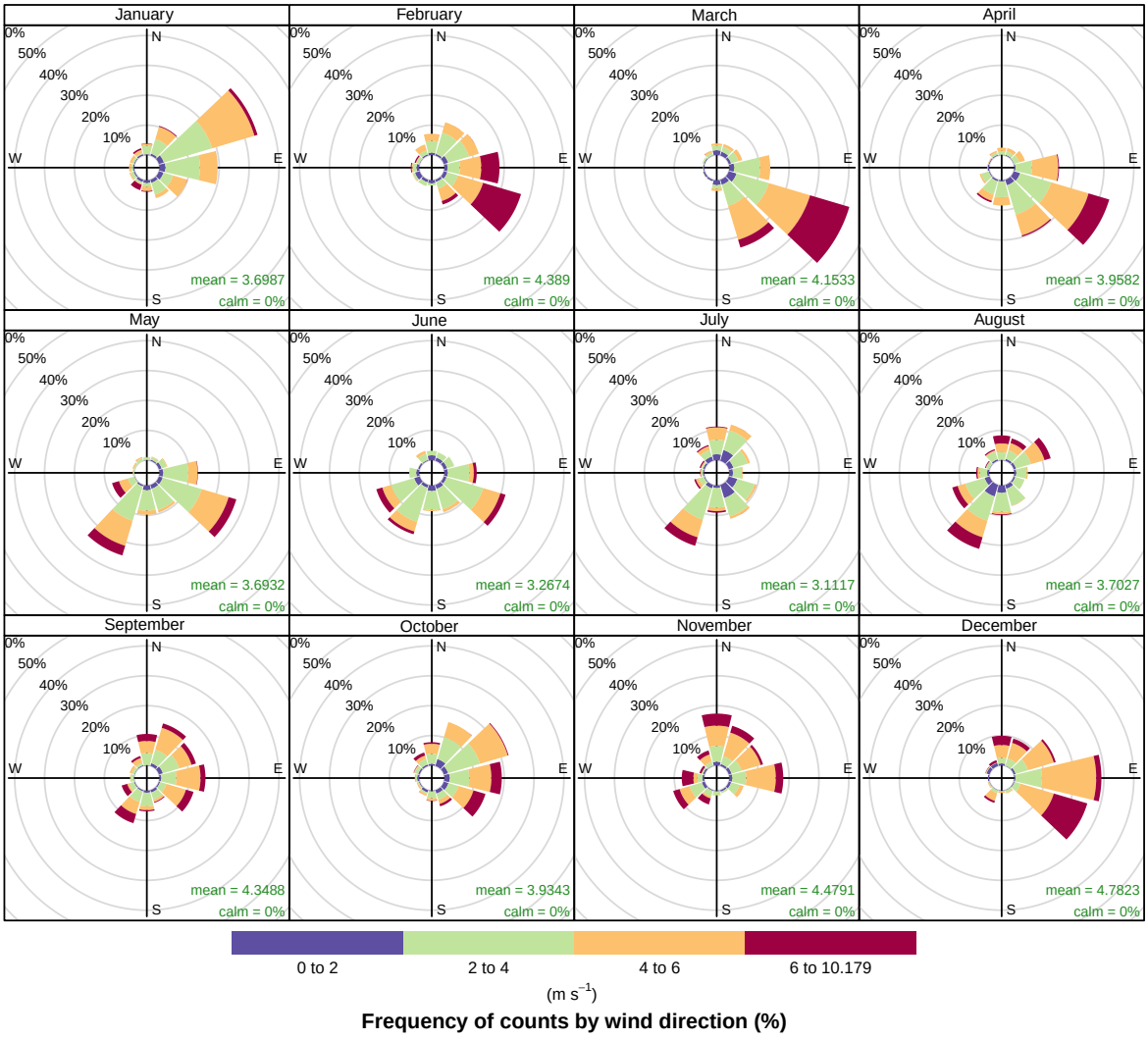

Figure S24. Wind rose Burncluith location for 2018.

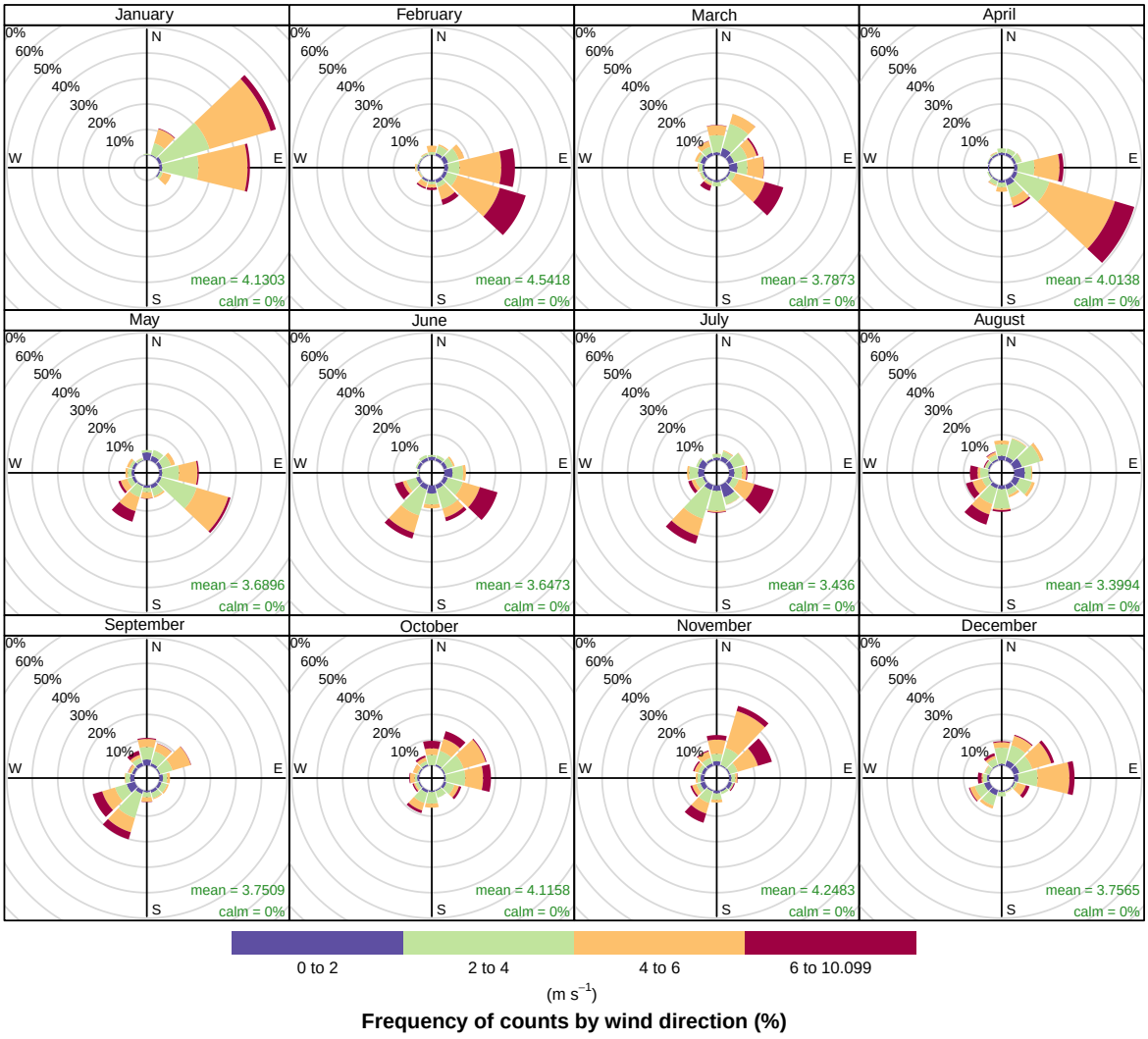

Figure S25. Wind rose Ironbark location for 2019.

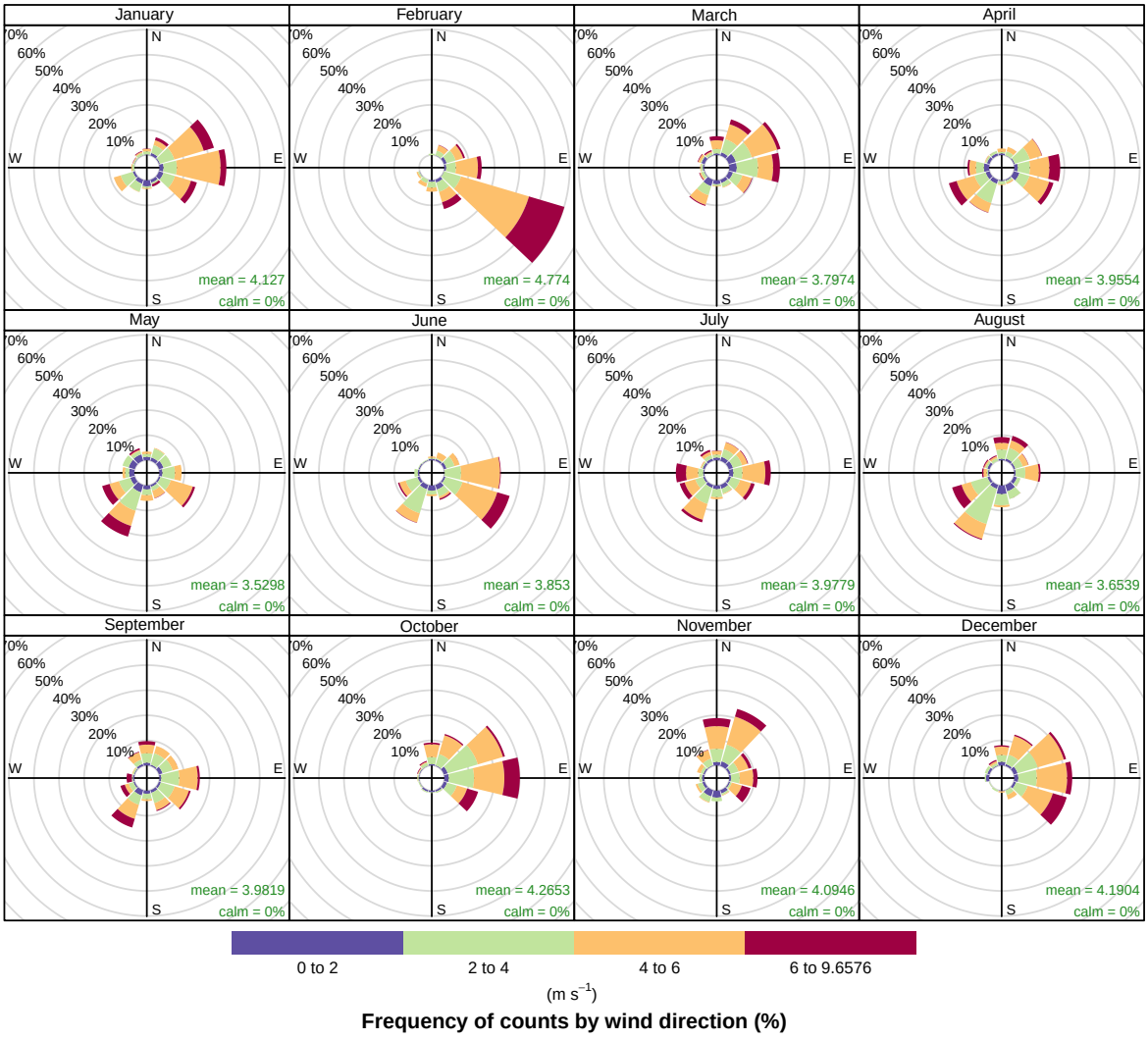

Figure S26. Wind rose Ironbark location for 2015.

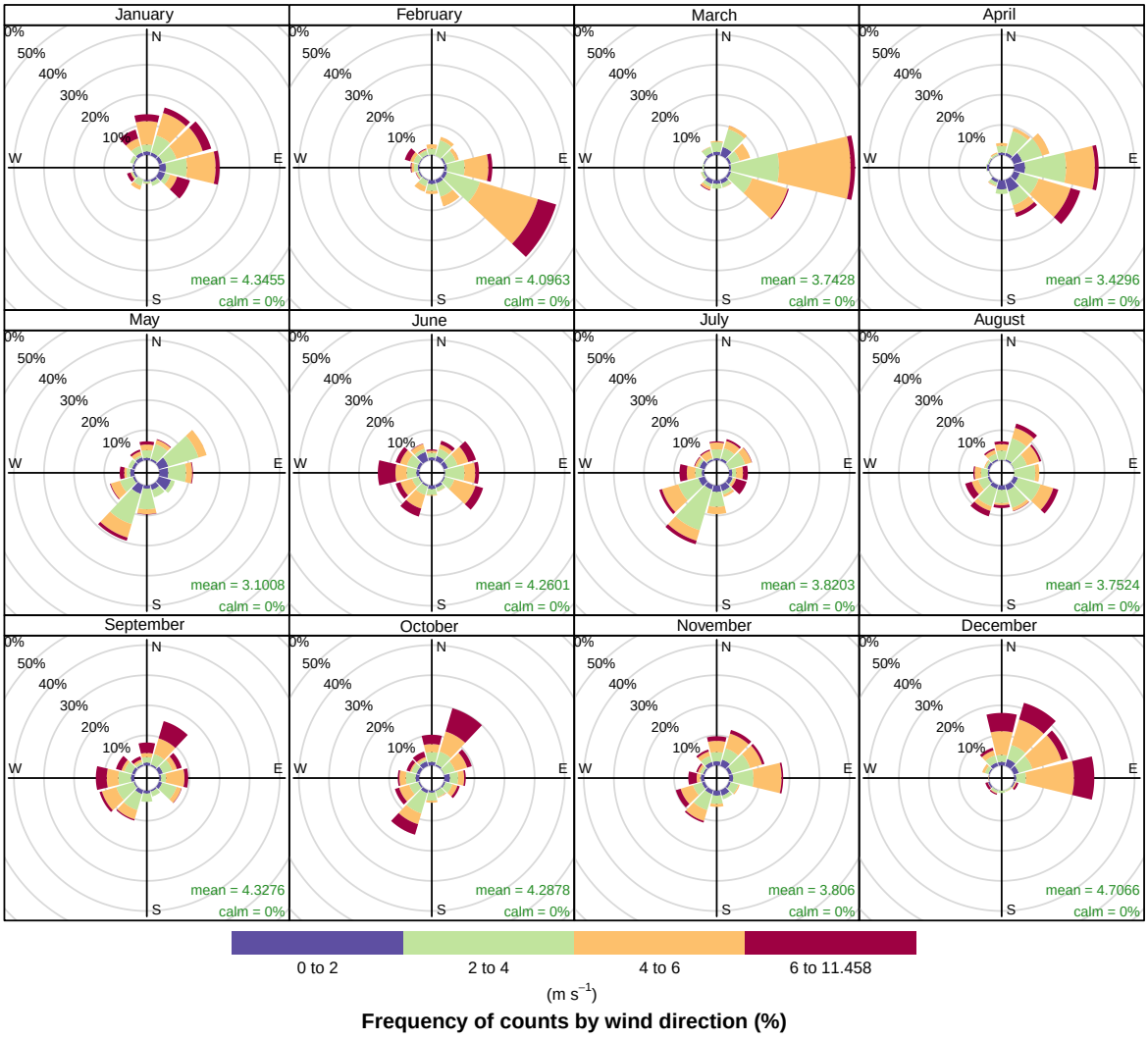

Figure S27. Wind rose Ironbark location for 2016.

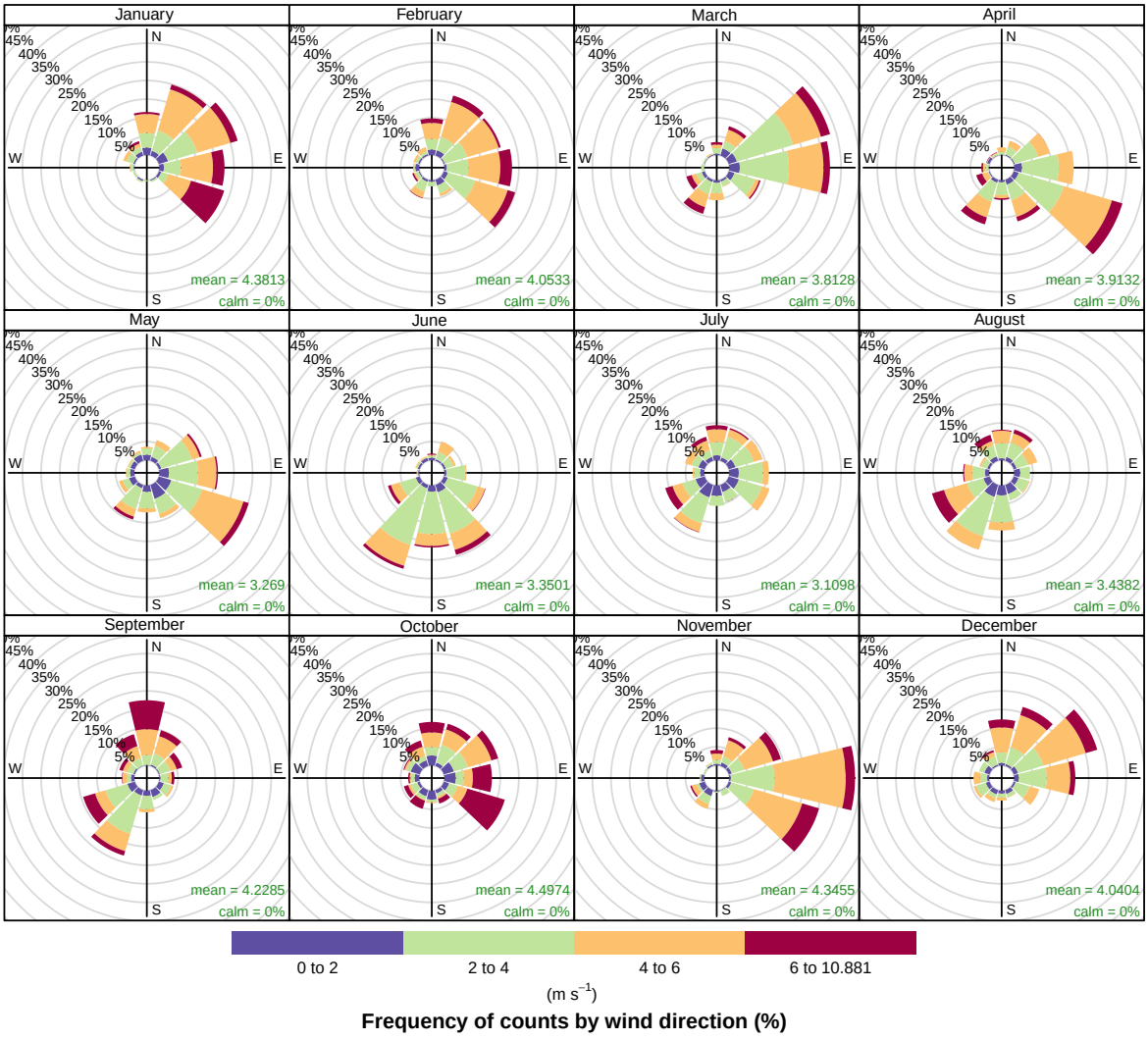

Figure S28. Wind rose Ironbark location for 2017.

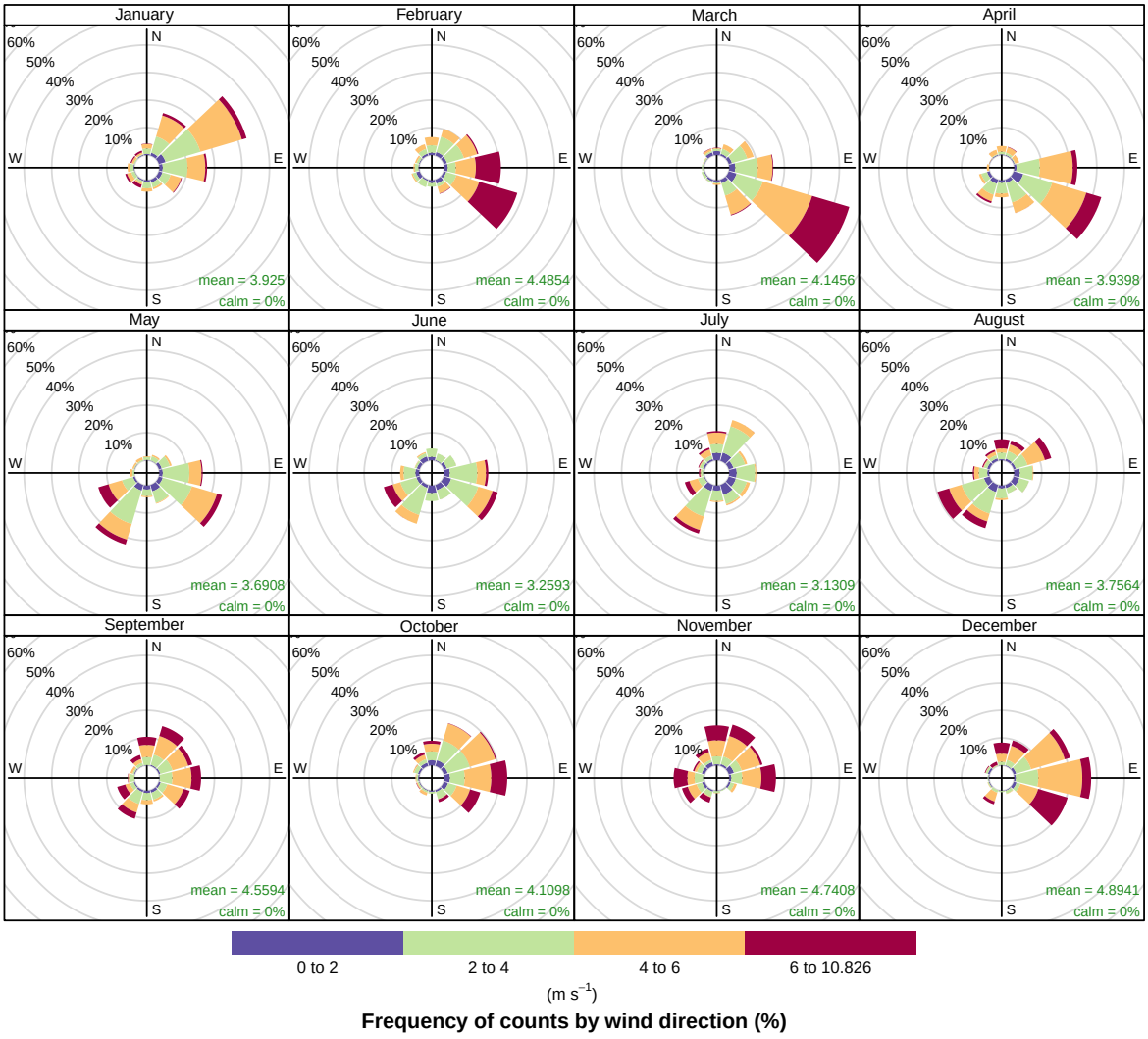

Figure S29. Wind rose Ironbark location for 2018.

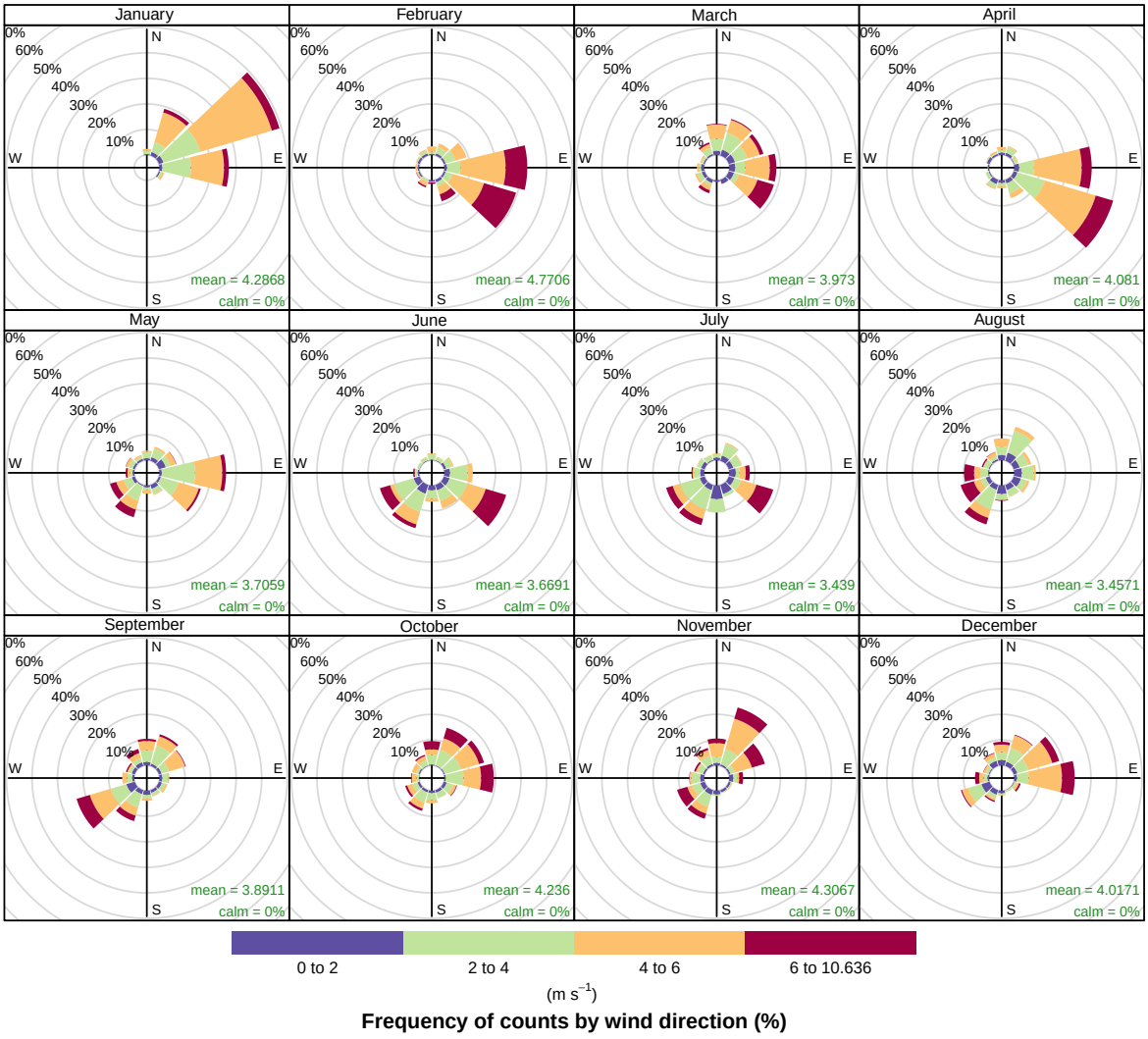

Figure S30. Wind rose Ironbark location for 2019.

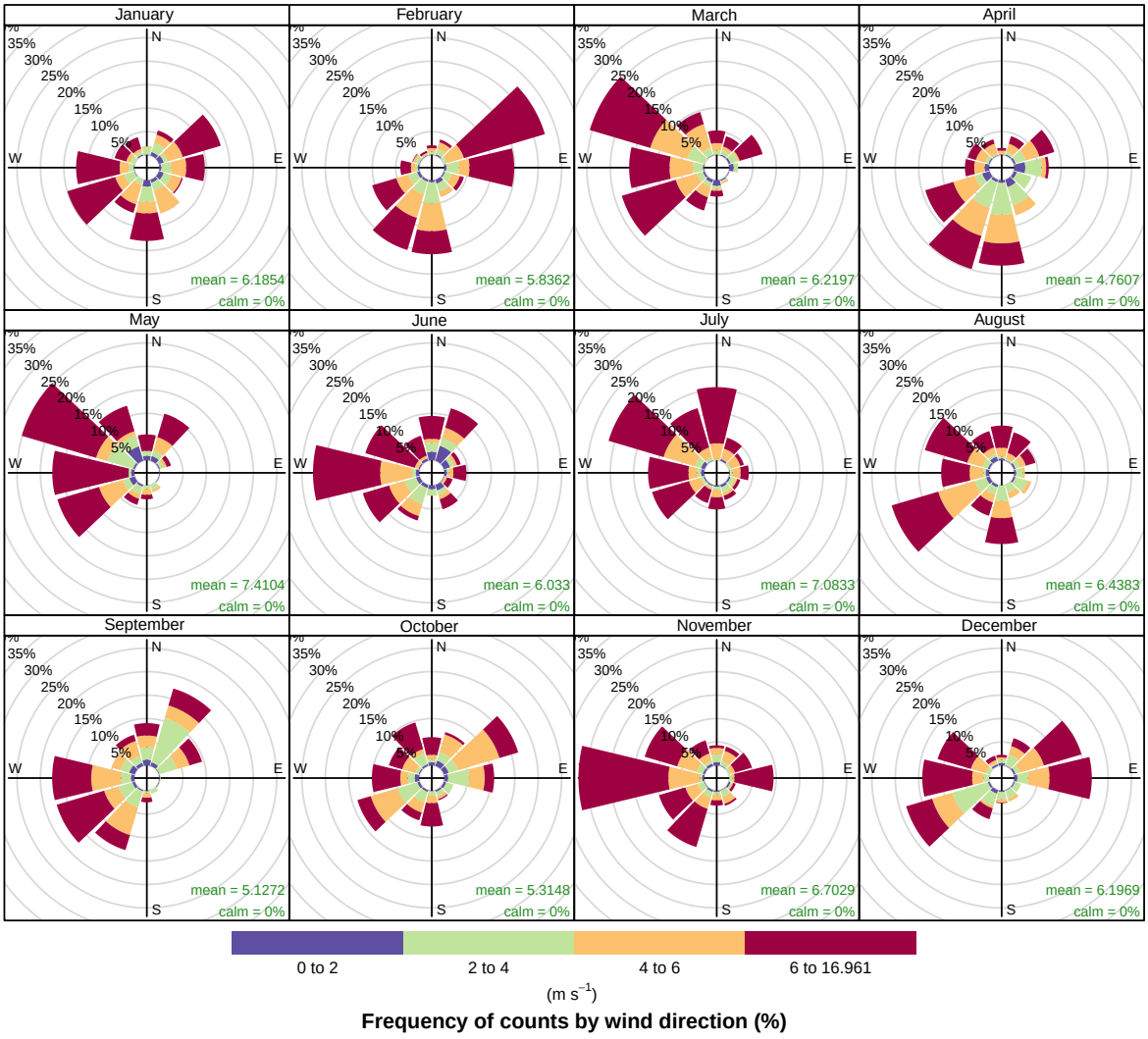

Figure S31. Wind rose Cape Grim location for 2015.

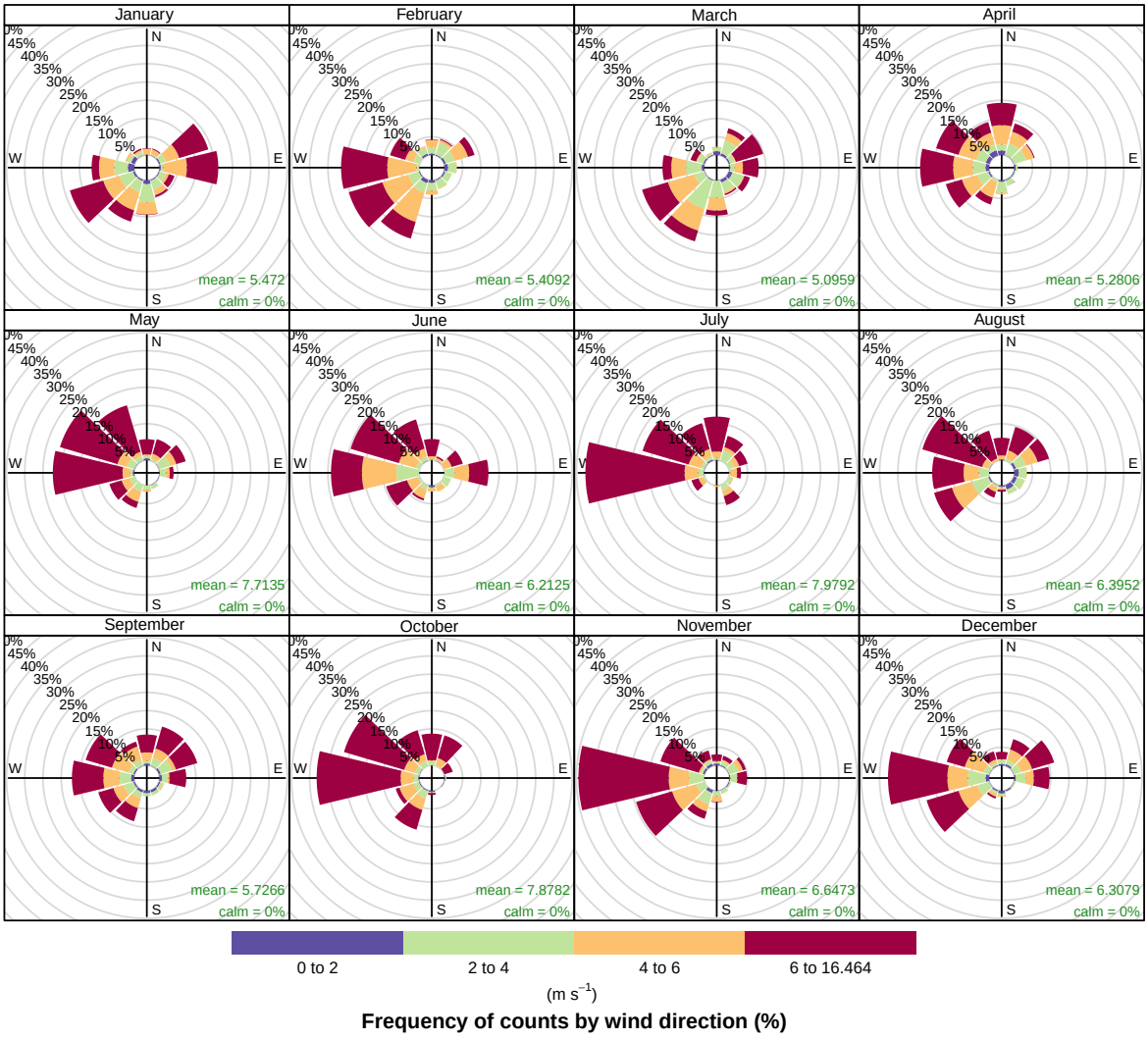

Figure S32. Wind rose Cape Grim location for 2016.

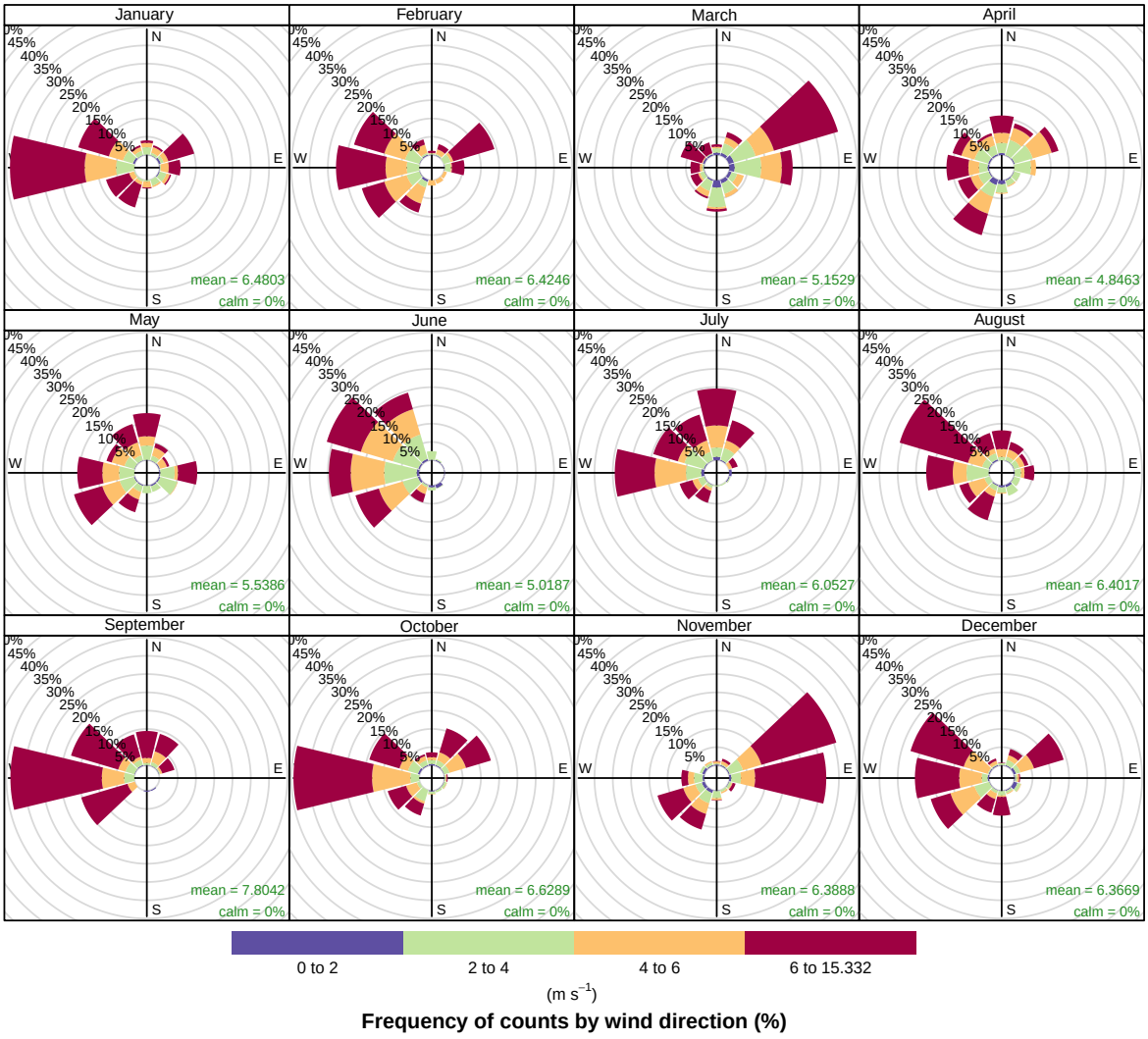

Figure S33. Wind rose Cape Grim location for 2017.

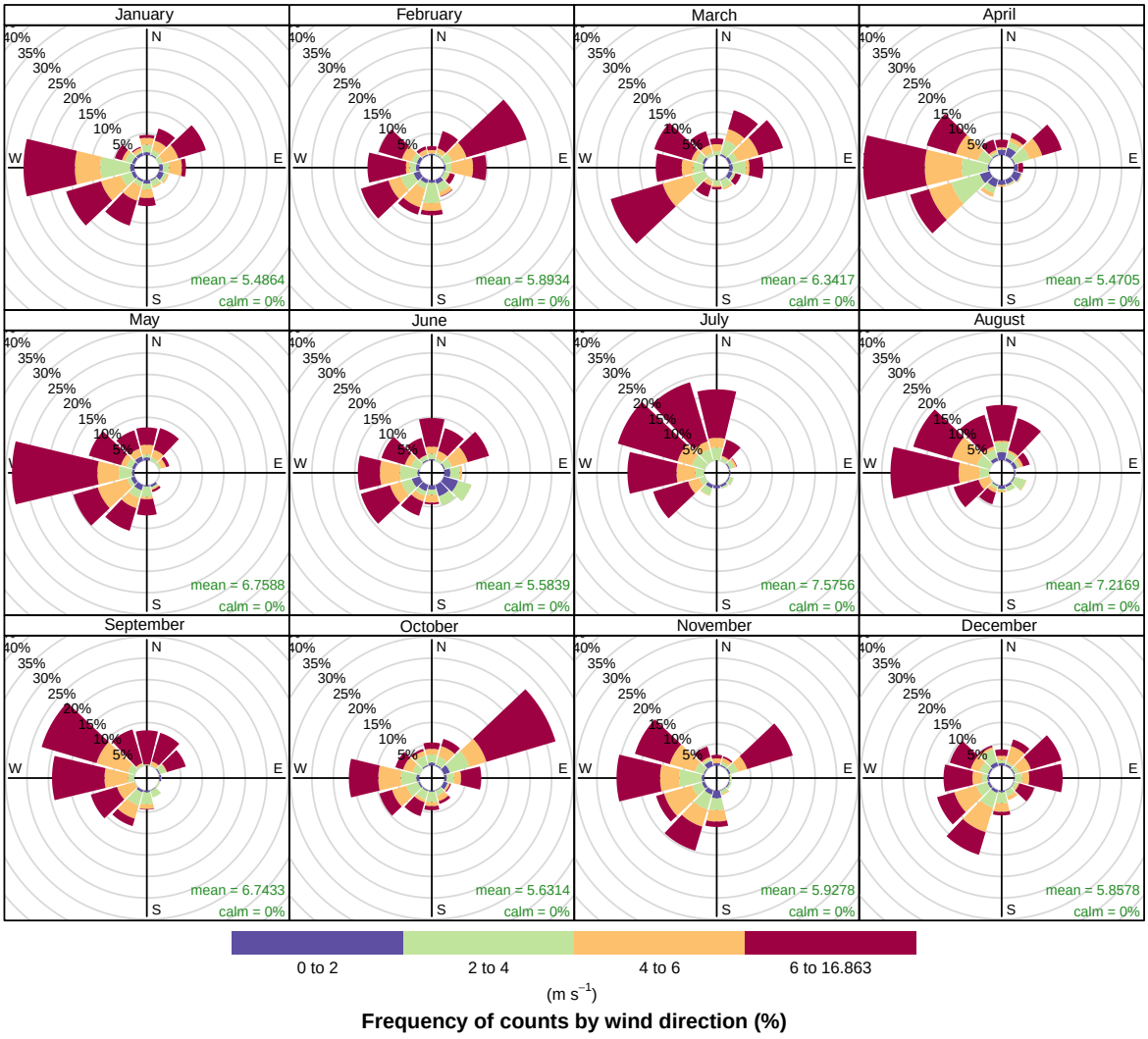

Figure S34. Wind rose Cape Grim location for 2018.

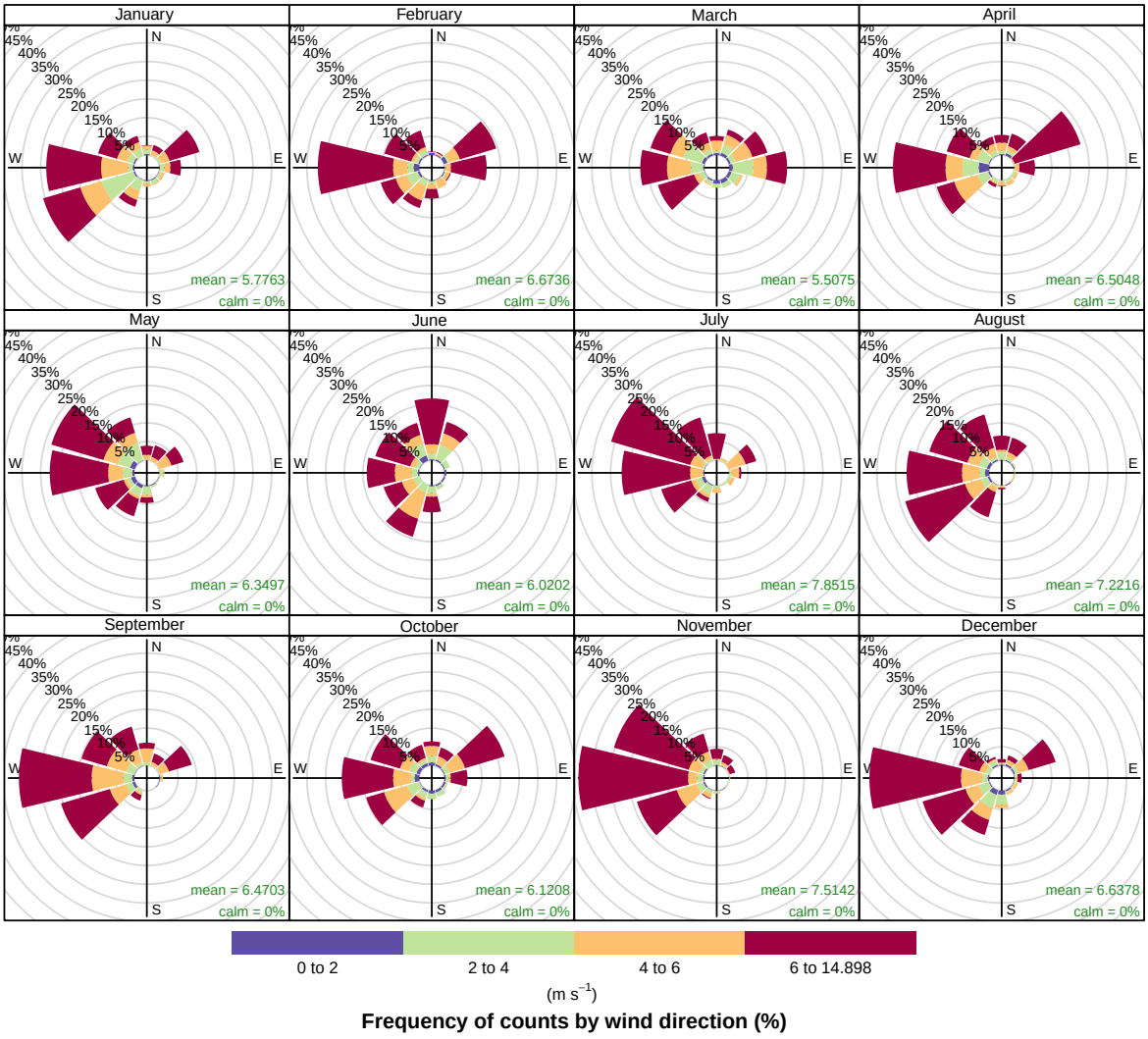

Figure S35. Wind rose Cape Grim location for 2019.