# Ross Island Region Wind Meso-Network Proposal

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- Motivation
- Regional Downslope Winds
- Proposal
- Questions and Comments



## Motivation

- 16% of observations at NZFX had winds >= 15kts
  - 13% during operating season months
- $\sim 7\%$  of NZFX observations had crosswinds  $\geq 15$ kts
  - 5% during operating seasons months
- 62 Extreme Wind Events at Pegasus North between 1992 and 2013 (Weber et al, 2016)
- 48% of observations with wind speeds >= 15kts were southerly (180 +/- 22.5 degrees)
  - 65% when wind speeds >=25kts



## Downslope Setup





### AMPS SLP & Precipitation





### AMPS Cross Section







### AMPS Surface Wind





#### Low Level Mountain Wave





### Meso-Network Proposal

- 15 Automatic Weather Stations
  - Wind Vane
  - Anemometer
  - Barometer

• 12-24 month installation period



### Meso-Network Proposal





### Future Work

- Placement Analysis
  - Traversable areas
  - Analysis of AMPS placement of phenomena
- Vertical Component!





### Acknowledgements and References

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- DIGITALiBiz Inc.
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### Questions and Comments



