

# Proposal for Australia's Research Vessel Contribution to YMC: Plan B

## Principal Investigators

Matthew Wheeler: Bureau of Met; Lead PI & atmospheric dynamics

Alain Protat: Bureau of Met; Alternate Lead PI & Radar science

Todd Lane: University of Melbourne; High-resolution atmospheric modelling

Robyn Schofield: University of Melbourne; Atmospheric chemistry

Susan Wijffels: CSIRO; Physical oceanography and Indonesian Throughflow

Christian Jakob: Monash University; Cumulus & related parameterizations

Robin Robertson: UNSW; Internal tides and ocean mixing parameterizations

Adrian Matthews: University of East Anglia; Sea-gliders in upper ocean

Toshiyuki Hibiya: University of Tokyo; Ocean mixing observations & modelling

Fadli Syamsudin: BPPT; Oceanography and Indonesian permit coordination

Ming-Jen Yang: National Taiwan University; Radiosondes & dynamics

Jason Monty: University of Melbourne; Eddy-covariance air-sea fluxes

Alex Johnson: University of Melbourne; Biogeochemical cycling observations

Damien Callahan: Deakin University; Halocarbon and elemental analysis

Eric Schulz: Bureau of Meteorology; Surface meteorology & bulk fluxes

Charmaine Franklin: Bureau of Meteorology; Cloud physics and NWP

Zoran Ristovski: Queensland University of Technology; Aerosol microphysics

Shaun Johnston: UCSD; Internal waves, tides, and diurnal signal in ocean.

## Voyage Plan

October 21 - December 17, 2019

58 days total voyage time (Darwin to Darwin)

### Northwest Shelf station (14 days)

*Concentrating on observations of ocean internal waves, vertical mixing, water mass transformations near shelf edge, and processes contributing to SST variability. 48-hour Triaxus; CTDs; LADCP; microstructure vertical profiler; sea-gliders.*

### Warruwi station (33 days)

*Concentrating on radar observations of convection in tandem with Bureau operational radar. 3-hourly radiosondes; cloud radar-lidar; ocean observations with Triaxus tows and CTD two-yos in small region; wave-gliders.*

*Atmospheric chemistry, surface meteorology, and air-sea flux components to operate for entire voyage.*



RV Investigator – Australia's Marine National Facility

