

# SAILDRONE ANTARCTIC CIRCUMNAVIGATION : 2 USV, 5 STUDY TOPICS, 270 DAYS, OPEN DATA, LAUNCHING DEC 2018

Science Partners: NOAA, CSIRO, University of Exeter

## Study topic 1 - Krill abundance

Saildrone plans to collect krill abundance data using its acoustic echo sounder (EK80) to investigate the pressures krill face from both environmental change and commercial fishing.

## Study topic 2 - Tagged Penguins

Saildrones will endeavor to locate and follow tagged penguins and study the prey-predator-environment relationship.

## Study topic 3 - CO2 flux, ocean acidification and the role of phytoplankton

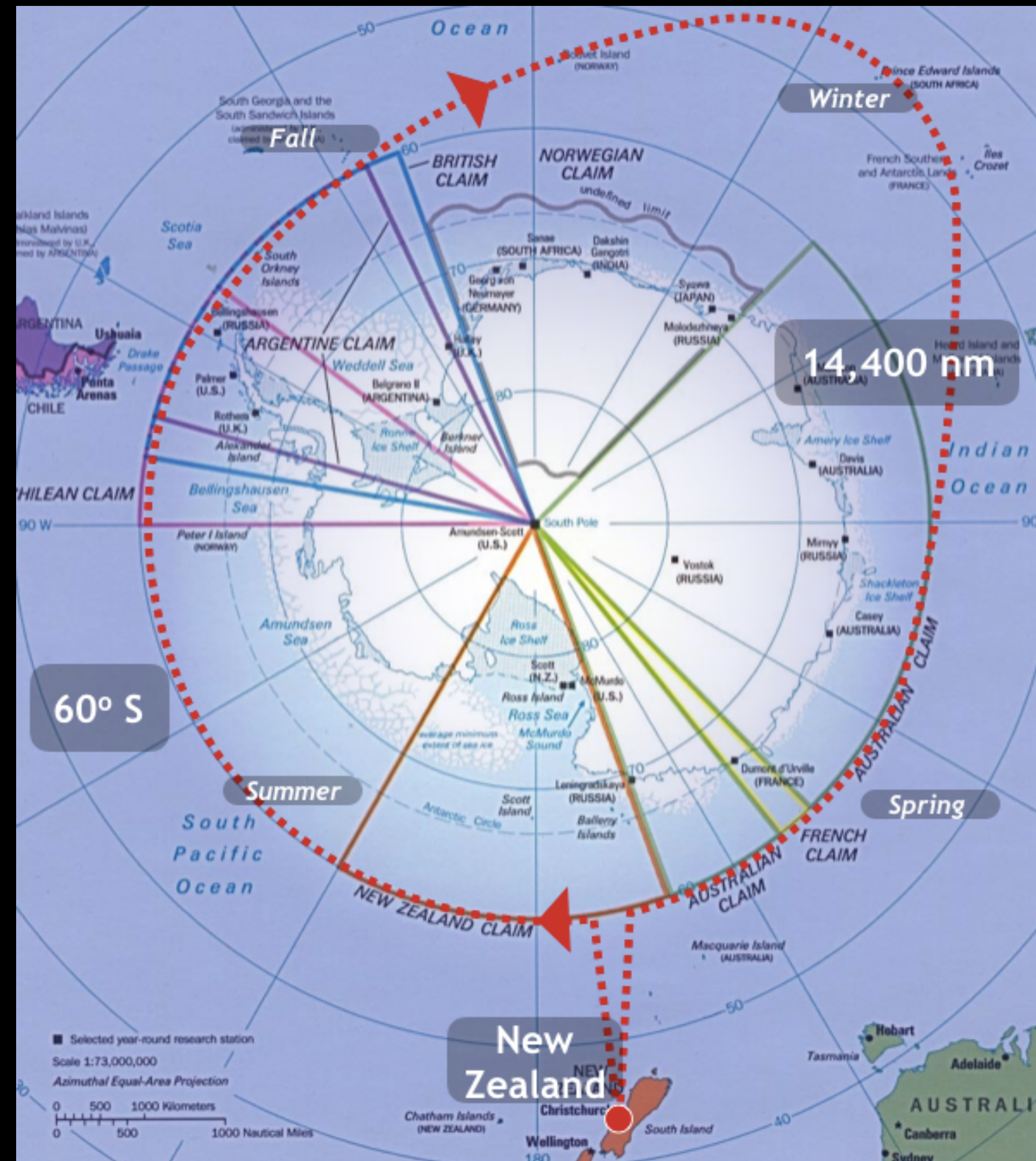
Saildrones will carry MAPCO2 systems to quantify CO2 fluxes and will use its fluorometer to detect the concentration of phytoplankton chlorophyll-a

## Study topic 4 - Meteorological observations

Saildrone will use its full suite of met ocean sensors to collect valuable data for weather forecasting and ecosystem modeling.

## Study topic 5 - Whale detection

Saildrone will help identify whales and their movement in the Ross Sea sector using keel-mounted hydrophones.



## Outreach plan

The Saildrone Antarctic Circumnavigation will have a strong outreach component to expose future generations to the rapid change taking place in the Antarctic. By using leading edge technology and a solid science foundation we will bring data-driven digital stories to millions of students around the world. It is very hard to bring students to Antarctica, so the proposed approach is to bring Antarctica to students in their home classrooms. Partners: 1851 Trust, Li Ka Shing Foundation, National Geographic

