

Animation

RV *Investigator* – weather research radar (general)

[YouTube] ref: <http://youtu.be/tLanMaOlAiA>

Transcript

[Music plays and plankton appear on screen with text: Marine National Facility]

[Camera pans over a school of southern bluefin tuna]

[Image changes to show an animation of RV *Investigator*]

[Text appears: RV *Investigator* Weather Radar]

[Camera zooms in on the weather radar and text appears: The weather radar on top of *Investigator* sends and receives microwave pulses.]

[Camera zooms in on the radar emitting microwave pulses]

[Text appears: The radar sends 800 pulses every second.]

[Camera zooms out on *Investigator* and shows the area where the radar can collect data. Text appears: Data is collected within a 150 km radius from the ship and 20 km into the atmosphere.]

[Camera pans skyward to show precipitation. Text appears: The pulse has a vertical and horizontal signal, called dual polarisation. The returning signal reveals the quantity, location, size and shape of any precipitation.]

[Image changes to show pictures of water, snow and ice. Text appears: Scientists will be able to see if a cloud is made from water, snow or ice]

[Image changes to show an aerial shot of landmasses surrounded by ocean. Text appears: Land-based radars already collect data for scientists. The radar on *Investigator* will record the first data from the oceans around Australia.

Footnote appears: Stuart Ramsden, National Computational Infrastructure, & Todd Lane, the Centre of Excellence for Climate System Science, University of Melbourne.]

[Image changes to show weather systems moving over the landmasses and surrounding oceans. Text appears: The data will be used to improve climate models and weather predictions for Australia.]

[CSIRO logo appears with text: Big ideas start here www.csiro.au]

MNF: <http://www.marine.csiro.au/nationalfacility/>

Investigator blog: Investigator@CSIRO