

## Introduction to Meteorology Electives Overview



## **Learning Outcomes – Elective sessions**

The second (or equivalent) day of the Introduction to Meteorology course focuses mainly on specific services provided by the Bureau. There is insufficient time to cover all these topics, so you are encouraged to complete the pre-course survey to indicate your elective preferences. The course will focus on the most popular electives. Each elective's learning outcomes are presented below.

Session	Learning Outcomes
Aviation	Obtain an overview of the Bureau's aviation forecasts and warnings Understand the role of the Bureau in Australian commercial aviation Explore impacts of weather hazards on surface and in-flight aviation operations
Climate Drivers and Outlooks	Explain the difference between weather and climate  Outline the key influences upon the Australian climate
What the weather 'should' do	Identify and use climate monitoring tools  Locate and interpret climate information available from the Bureau, including ENSO and seasonal climate forecasts
Fire Weather and Heatwaves	Describe weather conditions conducive to fires  Outline the Bureau's fire weather services  Recognise typical weather patterns that lead to increased fire danger  Define a heatwave and describe associated weather patterns
Floods	Define different types of floods  Describe the riverine Flood Forecasting & Warning Service  Explain the difference between a flood watch and warning  Describe key flood forecasting uncertainties  Use environmental information to make your own flood forecast
Marine	Describe key characteristics of a set of waves  Describe the generation and propagation of wind-generated waves  Identify the difference between seas and swell  Locate and interpret the marine forecast and warning services
Tropical Cyclones	List the key features of a tropical cyclone (TC) Outline where, when and how often TCs occur Describe the hazards associated with TCs and how they can vary from one TC to the next Access and interpret TC warnings and information
Tsunami	Describe the generation, propagation and impact of tsunamis, including observation and modelling techniques  Describe the Australian Tsunami Warning System products