= 1992 Queensland storms =

The 1992 Queensland storms were a series of thunderstorms which struck southeastern Queensland , Australia on 29 November 1992 . The storms produced strong winds , flash flooding and large hailstones in the region , including the capital city of Brisbane . The storms also spawned two of the most powerful tornadoes recorded in Australia , including the only Australian tornado to be given an official ' F4 ' classification on the Fujita scale .

The meteorological instability in the region resulted in the formation of at least five supercell thunderstorms in the space of around three hours . The storms , which spawned progressively further up the coast from Brisbane to Gladstone as the afternoon progressed , left a trail of damage resulting from hail , rain and wind . The event has been described as " one of the most widespread outbreaks of severe thunderstorms recorded " by veteran meteorologist Richard Whitaker .

= = Climatology and conditions = =

November is traditionally the start of the thunderstorm season along the eastern seaboard of Australia , with a rise in average humidity and warmer ground temperatures combining with more frequent occurrences of cool air in the upper atmosphere . These conditions are conducive for producing severe thunderstorms , particularly those which feature hail .

The conditions on Sunday , 29 November were extremely unsettled . There were a series of thunderstorm cells that formed early in the morning ? despite it being more common for thunderstorms to form in the late afternoon in the south @-@ east Queensland region . These storms , which had periodic bursts of severe lightning , cleared quickly .

Thunderstorms began to form again just before midday , as the hot and humid conditions became more acute in the middle part of the day . The Bureau of Meteorology radar picked up a series of cells to the north @-@ west of Brisbane , the capital of Queensland , and the data suggested that there was a possibility of large hail . The Bureau immediately issued a Severe Thunderstorm Warning for the coastal region between Brisbane and the Sunshine Coast , 100 km to the north .

The main cell in the thunderstorm system appeared from Bureau of Meteorology radar analysis to split into two separate and distinct cells . This development resulted in one part of the major storm to head north , to Maroochydore , while the other part headed south towards Brisbane . The southern cell struck Brisbane just after 1 : 00pm , with intense lightning activity and hailstones the size of marbles falling . The storm caused a lengthy delay during the First Test of the series between Australia and the West Indies , when hail forced play to be stopped at the Brisbane Cricket Ground around 1 : 15pm .

The northern cell continued to intensify throughout the afternoon . The Bureau of Meteorology then recognised it as a supercell , which often bring erratic developments and often last for long periods of time . The storm dropped hailstones which were between eight and ten centimeters around Maroochydore , on the Sunshine Coast , damaging the roofs of around 80 houses in the area . The hail also damaged aircraft at a local airport and dented cars , as well as inflicting injuries to a handful of swimmers at beaches near Maroochydore .

= = Tornadoes = =

The extreme instability in this area caused at least three more severe supercells in the region . Two separate cells both produced a tornado that were recorded as two of the most powerful in Australian history . The third supercell , which formed just after 3 : 00pm (immediately after the two tornadoes) near Gladstone , produced golf ball @-@ sized hail that caused crop damage around Gladstone . The total damage to crops from the event was placed in the millions (A $) .

= = = Oakhurst tornado = = =

Early in the afternoon , another supercell developed around the town of Maryborough , around 300

km north of Brisbane . It developed rapidly also , and at 2 : 30pm a number of reports sent to the Bureau of Meteorology reported a tornado had touched down in Oakhurst , a rural area 10 km west of Maryborough . However , due to the low population density in the area the reported damage was sparse , with one house destroyed , several others unroofed and hundreds of trees were snapped .

Upon investigation and analysis of measurements and the damage caused by the tornado , it was given a rating of ' F3 ' on the Fujita scale . This was one of the most powerful tornadoes ever recorded in Australia , and the scale indicated the tornado may have produced winds of between 252 and 300 kilometres per hour .

= = = Bucca tornado = = =

Only minutes after the Oakhurst tornado , another supercell developed to the south @-@ west of Bundaberg , around 400 km north of Brisbane and 150 km north of the Oakhurst tornado . It strengthened and moved in a north @-@ east direction , causing severe damage to Bullyard and Bucca areas with giant hailstones , described as the size of a " cricket ball " .

The supercell then spawned a tornado in the Bucca and Kolan area . According to reports by meteorologists , the tornado was so strong and the effects caused on the area it hit were so extreme that household appliances were displaced , small objects were embedded in trees and house walls , and " a 3 @-@ tonne truck body was carried 300 metres across the ground " . However , as with Oakhurst , the rural nature of the area affected limited the damage caused by the tornado .

Examination by a severe weather team from the Bureau of Meteorology examined the damage in the Bucca and Kolan region and recorded it as an ' F4 ' on the Fujita scale . This corresponds to the tornado being able to produce winds between 331 and 417 kilometres per hour and of ' devastating ' intensity . This is the first tornado ever to be recorded as an F4 in Australian history .