

◆ NSW Lightning Bolt ◆



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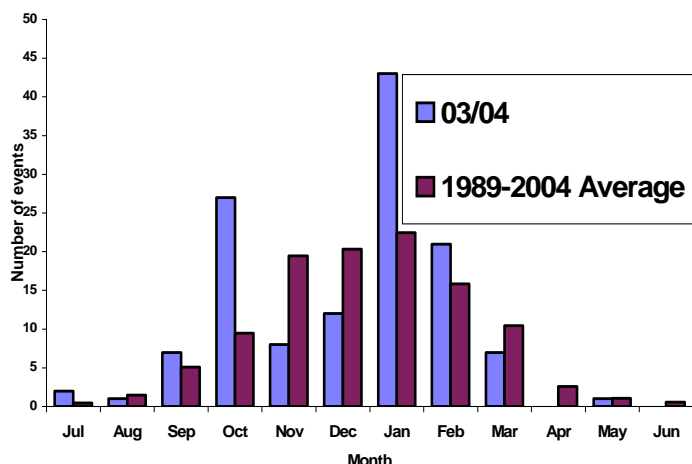
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Welcome to a somewhat overdue edition of the Lightning Bolt. Due to major staff movements in the Bureau the NSW Severe Weather Section has a rather different look about it now compared to the beginning of the last severe storm season. Due to all this upheaval we've been rather busy but hope this edition will prove to be worth the wait. In it we have a season summary plus an article on safety with mobile phones in thunderstorms. We know from some of your phone calls that many of you will be waiting for information on Spotter Training Courses and so we are pleased to announce preliminary details of these in this issue.

The 2003/2004 Storm Season

After a couple of horrendous fire seasons the weather patterns during the most recent summer returned to a more normal set-up, and that meant more storms. As a consequence, the Severe Weather Section was kept busy with Severe Thunderstorm Warnings and Advices. There were 129 severe thunderstorms in total recorded in NSW since the end of June 2003, the most in a season since 1997/98. The number of these in each month can be seen in the graph below along with the long-term average. Here's a summary of some of the more eventful days.

Severe Thunderstorm events by month



On the 2nd of October severe storms swept through the northern inland, bringing tennis ball sized hail near Gunnedah, very strong winds in Tamworth, roof damage at Krumbach and golf ball sized hail at Collarenebri. Later that afternoon damaging winds brought down trees and power lines in a number of locations in the northeast, including Lismore, Grafton, Tabulam, Drake and Byron Bay.

The 25th of October saw thunderstorms form in the Blue Mountains and rapidly intensify as they moved towards Sydney. There were many reports of hail, up to tennis ball size, and flash flooding in both the Blue Mountains and the north and west of Sydney. The next day it was the north coast's turn to cop the brunt of nature's fury. Hail at least the size of cricket balls fell at Kyogle, Tyndale and Woodford Island, with other locations receiving hail of around golf ball size. Gutters overflowed due to heavy rain near Tweed Heads.

On the 7th of January wind was the main feature of a series of severe storms along the north and central coasts and northern inland, with trees blown down and cars damaged. The strongest wind gust recorded at a Bureau station was 122 km/h at Tocal.

The 21st of January was the start of a particularly intense week of storm activity in NSW. During the Australia Day weekend a persistent unstable weather pattern made storms the talking point of the state. On the 21st severe winds lashed the southern inland and south coast with fallen trees causing major damage at Talbingo, while trees fell at Batlow and two houses were unroofed at Temora. Two days later the north coast was hit again, with large hail and winds estimated at around 110 km/h blowing down power lines, stripping gardens and reportedly killing several cattle in the Casino/Kyogle area. The next day, January 24th, was a big day of storms on most of the NSW coast with hail ranging from 2 cm to golf ball size, winds up to 100 km/h and rainfall as intense as 54 mm in half an hour near Lismore. It was during this period when lightning grabbed the attention of many of our storm spotters, and also the media, as a consequence of several people being struck, including a fatal strike on a cricketer at Bomaderry. Some spotters reported the most intense lightning activity they'd seen during this period. This is a timely reminder of the hazard that lightning poses, and you'll notice our feature article in this issue is related to lightning as we explore the use of mobile and cordless phones.

February got off to a stormy start with a severe hailstorm on the 2nd causing havoc in the Shellharbour area, where the Workers' Club suffered a partial roof collapse. On the same day a storm at Richmond brought minor hail damage and

flash flooding. Trees were brought down across roads and Sydney's northern suburbs also experienced some flash flooding.

Isolated damage reports were received on many other days this season and there were also days when radar data indicated storms were almost certainly severe. However the storms moved across sparsely populated areas from which no reports were received. As you can see, it has been a pretty eventful season overall. Thanks to all of you who provided your valuable reports during the season and keep up the good work.

Safety in Thunderstorms – mobile and cordless phones

You've probably heard that telephones should not be used in thunderstorms because of the risk of electric shocks from lightning striking the telephone line and traveling along it. You may be wondering then if it's OK to use mobile or cordless phones. A report by E J Bondarenko & Associates (Surge Testing and Protection Consultants) December 2002, has found that it depends on where you are.

If you are outdoors, a mobile phone is much like any other metallic object such as an umbrella or a golf club. It is advised that such objects should not be carried outdoors in a thunderstorm, as they may attract a strike. So avoid using your mobile outside in a thunderstorm!

Indoors is a different matter. It is safe to use a mobile or cordless phone indoors provided all other recommended safety measures are observed: Don't stand near open doors or windows, and avoid touching metallic objects and electrical appliances, including the base station of a cordless phone. All of these are shock risks.

It has been found that using mobile and cordless phones is also safe in a car with a metallic roof, as long as it is stationary, and there are no electrical connections between the handset and the car. You should also wind up the windows and avoid touching any metallic parts of the car, whether you're using a phone or not.

So in summary, a mobile or cordless phone is safe to use indoors or in a car, provided that all other safety precautions are followed, but outdoors it might act as a lightning rod, so don't use it!

Spotter Training Courses

We are pleased to announce that staff of the NSW Severe Weather Section will be conducting training for Severe Thunderstorm Spotters on three occasions later this year. The training is designed to provide a better feel for the nature of severe thunderstorms and how spotter reports fit into the Bureau's warning service. At this

What to Report

Spotters are asked to report to the NSW Bureau of Meteorology if they observe :

- ◆ Hail 2 cm diameter (\$2.00 coin size) or larger
- ◆ Damaging winds (90 km/h) or greater (eg. trees snapped, uprooted, large branches down; roofing tiles / iron lifted; structural damage to well constructed buildings)
- ◆ Tornadoes (rotating funnel clouds)
- ◆ Very heavy rainfall with "flash" flooding of low lying areas (around 30mm in 30 min or 40mm in one hour)

As soon as it is safe, phone your report to our "freecall" number:

1800 060292

This greatly assists the Bureau in monitoring severe storms and passing on warnings to other communities.

Please post your spotter report card to us even if you do call. This ensures that our record of your event is correct. The information you provide helps us build a better picture of severe thunderstorms across the State.

stage we plan to run the courses in the evening (from about 6pm onwards) but we will provide more information closer to the time. If you wish to find out more, including details of venues, please call us to register your interest. The dates which have been set for training are:

Canberra	Wednesday August 4 2004
Coffs Harbour	Thursday August 26 2004
Sydney	Thursday September 16 2004

To register your attendance, call the Severe Weather Team on (02) 9296 1604 during office hours and leave your name and contact details. Be sure to register early as numbers will be limited.

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